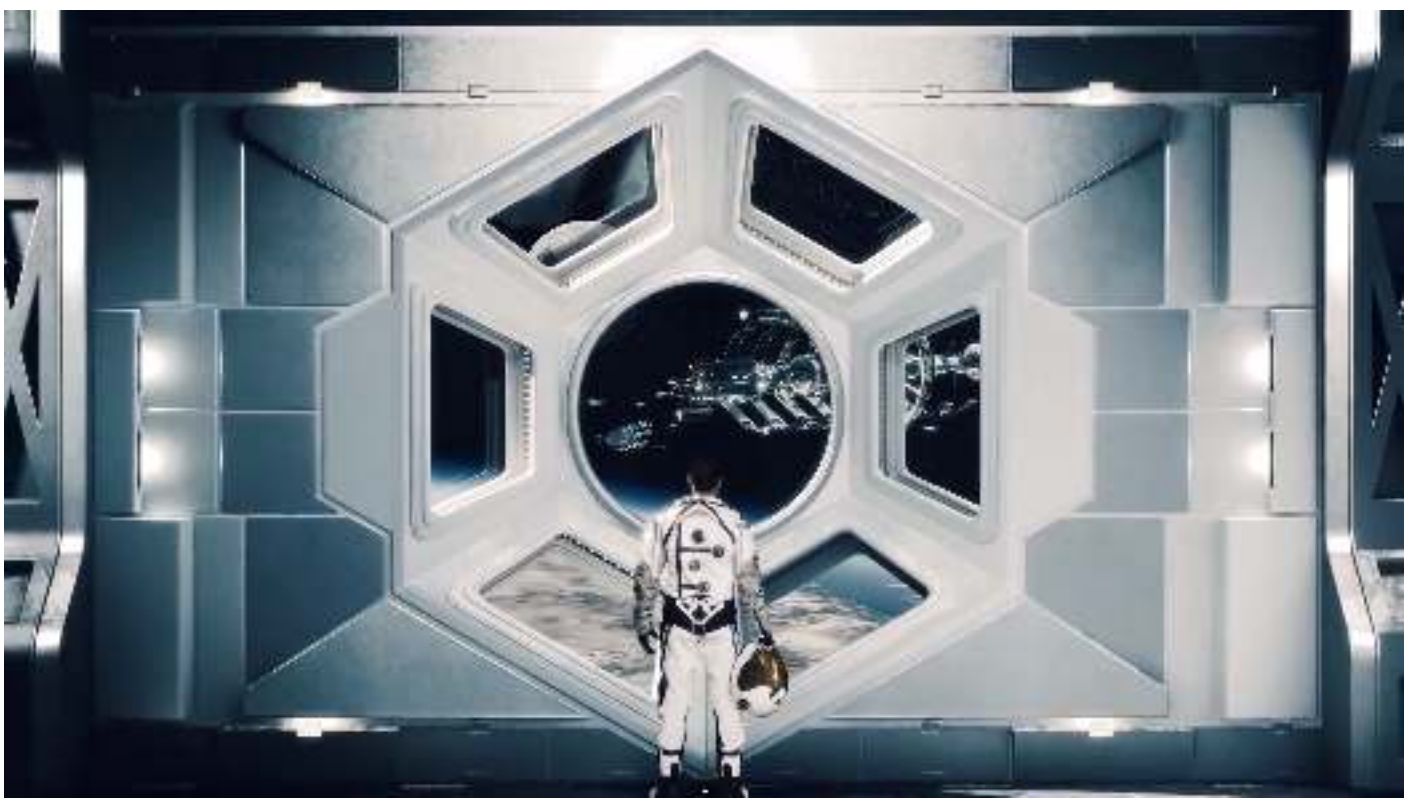
Introduction

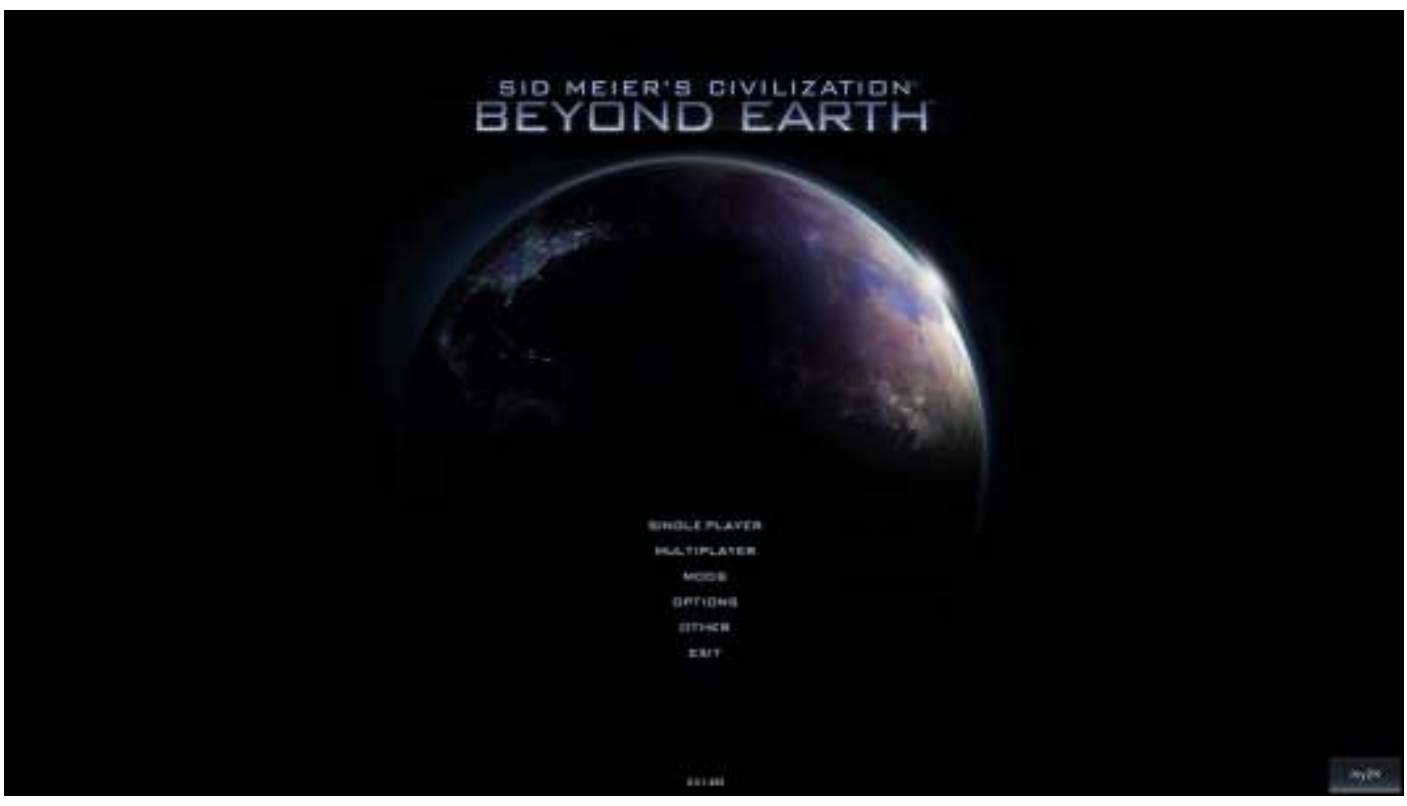
# About Sid Meier's Civilization: Beyond Earth

## PLANETFALL IN 3...2...1



*Civilization: Beyond Earth* takes the series into deep space and beyond. This time, you won't be settling ancient lands and learning how to use stone, metal, and fire to forge an empire. Instead, this will be the time of nanotechnology, aliens, and orbital weaponry.

*Civilization: Beyond Earth* is a turn-based strategy game with everything that the genre is loved for: exploration, exploitation, expansion, and extermination of your enemies. This book covers the statistics, tactics, and strategies that are essential for mastering the game, whether you're playing against the computer or your friends. We'll explain what the in-game stats mean and then review the best ways to use everything that you're going to encounter.

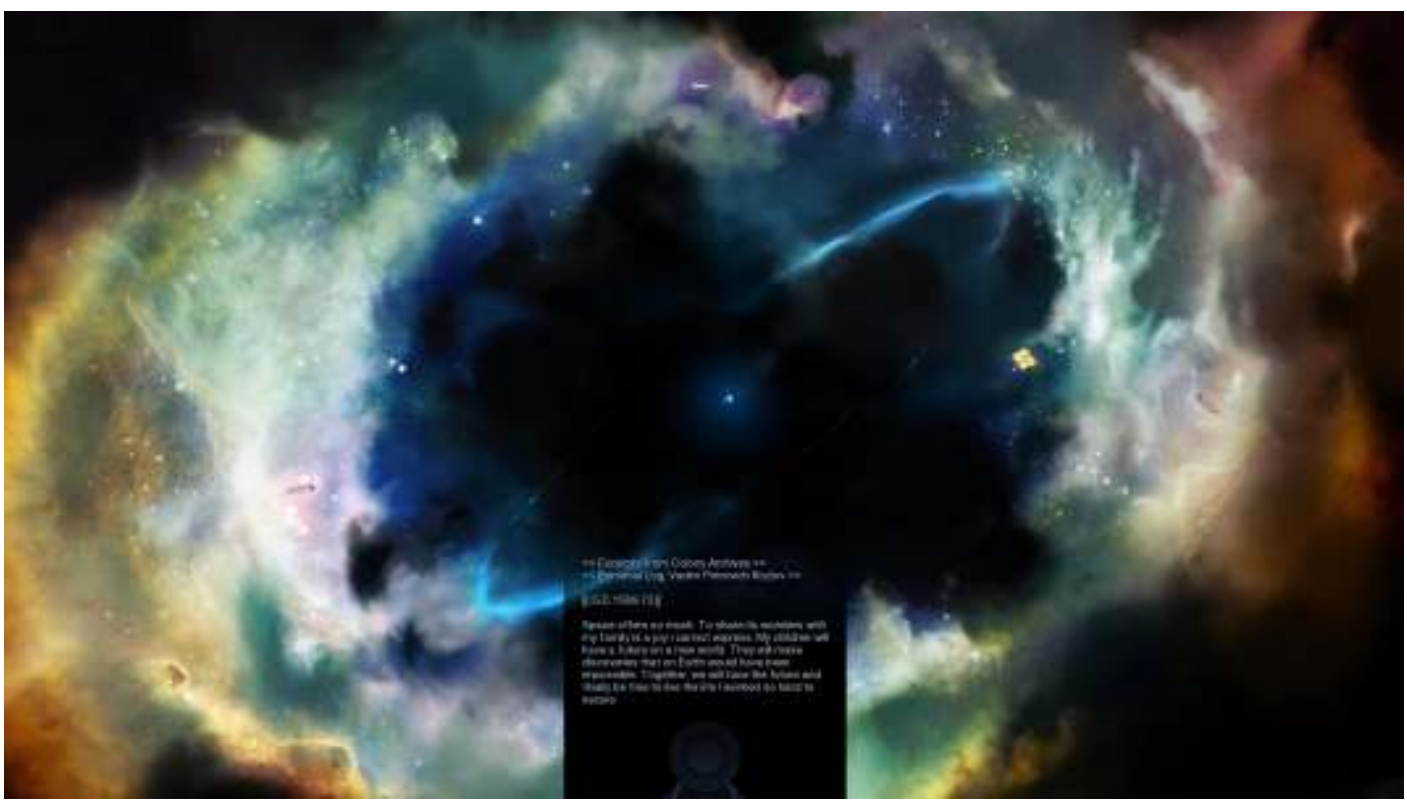



There are 16 chapters in this guide because there is a huge amount of material to go through. We've divided the book conceptually, so that you can jump to any subject that piques your interest.

The Starting a Game and Core Concepts chapters take you through the game's options and changes/similarities between *Civilization: Beyond Earth* and other games in the series.

Next, we'll go through the massive number of units, buildings, wonders, terrain types, and technology in this game. Though these look like reference chapters, each entry goes on to discuss the usage, advantages, and warnings for all of these items. You can't build an advanced strategy without knowing all of the features and components at your fingertips. These chapters help you master those elements.

Afterward, we'll get into specific strategies about the major aspects of the game: quests, affinities, virtues, trade routes, stations, and covert operations. With all of the rudiments already covered, we'll be able to lead you into advanced discussions of these higher-tier concepts.



Toward the latter section of the guide, we'll get into examples of single-player and multiplayer games. We'll demonstrate the concepts that were shown throughout the guide and talk about how they work (and when they don't) in real games.

Starting a Game
# Game Selections

## GAME OPTIONS

Before immediately jumping in, it is important to first learn about *Civilization: Beyond Earth's* options, hotkeys, setup, and Colonies. These features (with the exception of the Colonies) are similar close to earlier *Civilization* releases. Colonies are covered in subsequent sections.

First, load the game and look at the main menu. There are a few features here, and it is worth finding out what they all do.

Single Player is for creating or loading a game against the computer. A later section of this chapter will deal with the actual setup of a game.

Multiplayer is similar in setup, but it is important to understand if the game is to be set up locally (Hot Seat, using the same computer for all players) or across multiple computers (Standard). If playing with multiple computers is more suitable, there are two options. Games can be set up on the local network (which only allows computers connected to the same network) or through the Internet. Setup continues similarly to Single Player.

The Mods system allows the ability to control which game mods are used in upcoming games. This is not a major feature during the early weeks of the game's release, but it becomes more and more exciting as time goes on. People create all sorts of fun mods to play with that may feature different units, alter the rules, or generate new map challenges, scenarios, etc. Search online to find ongoing content and keep the game fresh for months (or years) to come!

The Other selection on the menu gives several choices. Latest News provides information on any updates on the game and its continued development. The Civilopedia is a perfect source for fast information about units, buildings, concepts, and so forth. This guide covers everything that is in the Civilopedia, but it makes looking up basic stats quicker while in game.

The Hall of Fame keeps track of the player's best games; it lists the score, civilization, type of victory, settings, and time played. This is a good way to see which styles are the strongest. It is helpful for continued growth as a player. It is a good way to see what aspects and playstyles need to be worked or avoided.

View Replays reviews previous games to look through a stunning number of metrics. Use this system to learn where the best power spikes are so preparing for them in the future becomes easier. "Oh, I'm often strongest here and weakest at this point in the game." Knowing those things is wonderful for mitigating enemy attacks and maximizing forays.

View the Credits to see all of the people who put their time into this game.

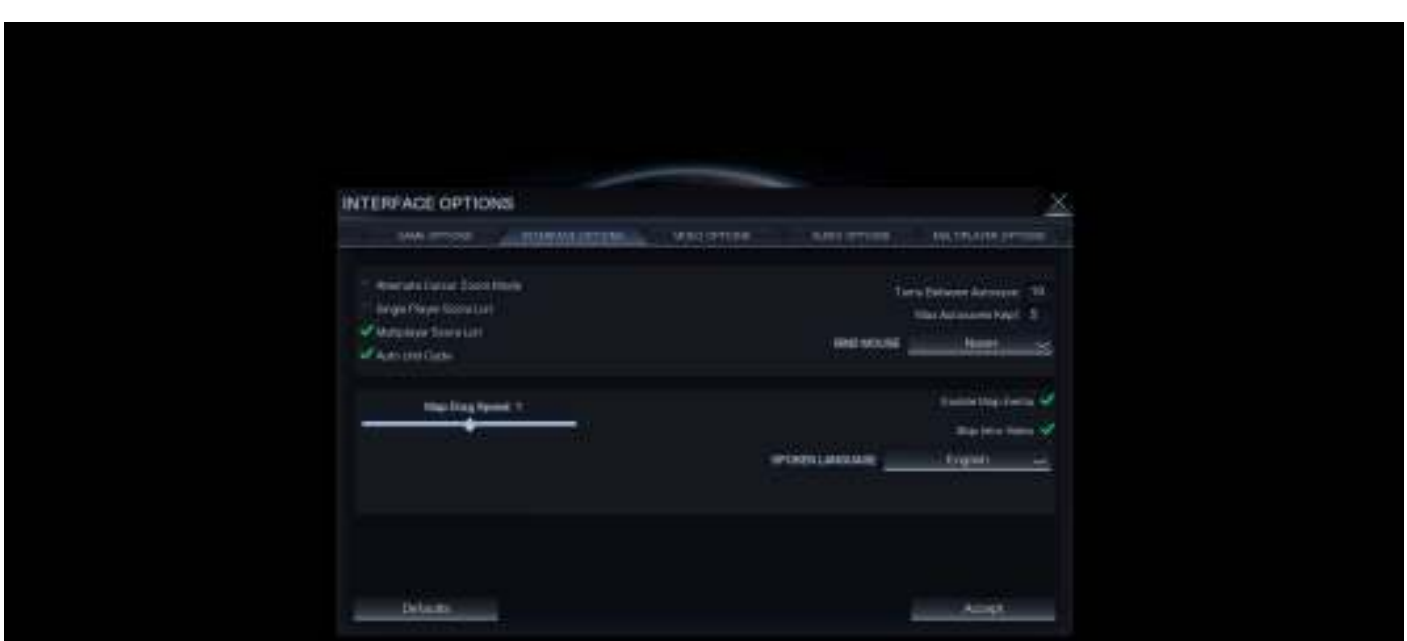
Options was saved for last, as it hosts a number of interesting features that should be mentioned.

## The Options Menu

The Options menu has multiple tabs. The Video and Audio Options let you control how the game is presented. That is mostly dictated by the computer setup and personal interests, so explore these settings to see which is the most comfortable.

Use Multiplayer Options to determine the name that appears when playing locally. This may not be too important, but can help when notifying other players which game to join.

The Interface Options start to get a bit more involved. If there are any problems with the system or more autosaves are needed this is the section that would prove most useful. This tab also allows the Spoken Language, Mouse settings, and the Map Drag Speed to be changed.




The Score Lists in the Interface Options tab are useful, too. By default, the game keeps the score in the Diplomacy menu during single-player use. Players have the option to toggle the score list on, making it easier to view in game without opening the Diplomacy menu. This is helpful for keeping tabs on opponents. Seeing their scores all the time allows players to view any changes that are occurring.

Game Options has even more settings to explore. It may be a good idea to check both options that limit automated workers. In not checking these, workers may end up doing the complete opposite of what the player may consider beneficial, if not watched closely.

To speed up the game by a huge margin, use quick combat and quick movement in single-player and multiplayer games. Cutting off these animations reduces the cinematic nature of the game, but it shaves many minutes off of playtimes.

The Advisor Level is used to determine how much help a player may need. Each level pertains to different degrees of help. For example, New to Civilization would be perfect for a player who has never played any Civilization games. Players can turn this off once they know the game well.

# GENERAL HOTKEYS

It is easy to ignore hotkeys when the mouse can take care of any problem in the game. However, learning the hotkeys make it faster and easier to switch between multiple systems in the game. The faster this process is, the easier it will be to take advantage of everything the game has to offer.

### General Hotkeys

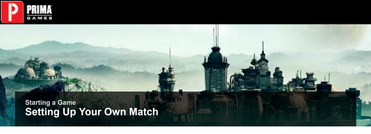
| Action | Hotkey |
|---|---|
| Civilopedia | F1 |
| Economic Info | F2 |
| Military Info | F3 |
| Diplomacy Info | F4 |
| Virtues Screen | F5 |
| Tech Web | F6 |
| Covert Ops Overview | Ctrl-E |
| Notification Log | F7 |
| Victory Progress | F8 |
| Quest Log | F9 |
| Trade Route Overview | F10 |
| Quick Save | F11 |
| Quick Load | Ctrl-F11 |
| Hex Grid | Shift-G |
| Menu | Esc |
| End Turn | Enter |
| Next Unit | Period |
| Previous Unit | Comma |
| Zoom Out | - |
| Zoom In | + |
| City Manager View | Insert |
| Zoom In | Page Up |
| Zoom Out | Page Down |
| Show Resource Icons | Shift-R |
| Show Yield Icons | Shift-Y |
| Orbital Layer | Shift-O |
| Save | Ctrl-S |
| Load | Ctrl-L |
| Next City | ] |
| Previous City | [ |

# UNIT HOTKEYS

It takes longer to learn and remember all of the unit hotkeys. It is not necessary to get all of them down quickly, or even at all. Just remember the few that are used the most: "H" to heal, "F" to fortify a unit and let it sleep in an area, "B" for ranged attacks (think of it as "bombard," and you'll remember it every time), and "S" for air strikes.

### Unit Hotkeys

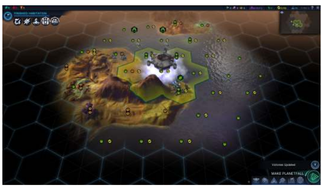
| Action | Hotkey |
|---|---|
| Move Mode | M |
| Explore (Automated) | E |
| Sleep | F |
| Alert | A |
| Do Nothing | Spacebar |
| Delete the Unit | Delete |
| Attack | Ctrl-A |
| Ranged Attack | B |
| Set up Artillery | S |
| Fortify until Healed | H |
| Fortify | F |
| Rebase Mode | Alt-R |
| Air Strike Mode | S |
| Air Sweep | Alt-S |
| Intercept | I |
| Found City | B |
| Build Improvements (Automated) | A |
| Repair an Improvement | P |
| Construct a Road | R |
| Construct a Magrail | E |
| Route to Mode | Shift-Ctrl-R |
| Remove Road | Alt-R |
| Clear a Marsh | Alt-I |
| Clear Miasma | S |
| Add Miasma | S |
| Construct a Farm | L |
| Construct a Generator | G |
| Construct a Paddock | I |
| Construct a Mine | I |
| Construct a Plantation | I |
| Construct a Quarry | I |
| Construct a Work Barge | I |
| Construct a Terrascape | T |
| Construct a Node | O |
| Construct an Array | D |
| Construct a Dome | U |
| Construct a Biowell | Y |
| Construct a Manufactory | W |
| Construct an Academy | Q |
| Construct a Geothermal Well | I |
| Construct a Petroleum Well | I |
| Remove Forest | Alt-I |
| Cancel Last Mission | Backspace |
| Construct an Expedition | I |
| Construct a Xenomass Well | I |
| Construct a Float Stone Quarry | I |
| Construct a Firaxite Mine | I |



Starting a Game

# Setting Up Your Own Match

Some players like to jump in immediately and figure out everything on the fly. That's great! Go ahead and make a game now, and get started. Come back to this guide later, when you're ready to learn more.



The Setup Option allows the player to choose a number of features for their game. Including but not limited to, Game Pace, Difficulty, Map Size, Sponsor, Colonists, and Planet to name a few.

Play Now starts a match with most of the settings that were used for the last game.

## The Basic Setup Screen

The basic menu takes you through a series of five choices to customize your nation. The first one is likely to be the most important of all: who are you going to play? Your Sponsor determines your Leader, your Colony's primary bonus, and their city names, colors, etc. All of the Sponsors are good, but their bonuses vary. Find a Sponsor that matches your playstyle to get the best advantage out of it. Covert Operations fans are going to love ARC. Big traders favor Polystralia. Brasilia mows down the field with tough troops.

## Sponsors

- **ARC**: Good spying (Flexible)
- **Pan-Asian Cooperative**: Best wonder builders (High Points, High Risk)
- **Franco-Iberia**: Free Technology when they reach cultural milestones (also Flexible)
- **Slavic Federation**: Orbital bonuses (better mid and late game)
- **Polystralia**: Bonus trade routes (Development)
- **Kavithan Protectorate**: Outposts become cities faster (Expansion)
- **Brasilia**: +10% combat strength in melee (Conquest)
- **People's African Union**: +10% Food in growing cities if your nation is healthy (Growth)

After picking a Sponsor, choose a type of Colonist. Colonists give bonuses to every city. This selection should be based on the intended focus (e.g., fast growth requires Food and good Health, research demands Science).

## Colonists

- **Scientists**: +2 Science in every city
- **Refugees**: +2 Food in every city
- **Aristocrats**: +3 Energy and +1 Health in every city
- **Engineers**: +2 Production in every city
- **Artists**: +2 Culture and +1 Health in every city

The Spacecraft Choices are slightly less important but still essential. This is a minor bonus that helps during the early stages of the game. A player who loves to explore, may want the Continental Surveyor to see all the coastlines on the map. Someone who is particular on where they land, and want a wider area to land, would want Retrograde Thrusters. A player intent on gathering resources will want Tectonic Scanner. An Energy hungry player will want Fusion Reactor. And someone who wants to either avoid aliens or befriend them might want Lifeform Sensor.

## Spacecraft Choices

- **Continental Surveyor**: Reveal coasts on the map.
- **Retrograde Thrusters**: Extra territory for choosing your first city.
- **Tectonic Scanner**: You see Petroleum, Geothermal, and Titanium resources automatically.
- **Fusion Reactor**: +100 Energy.
- **Lifeform Sensor**: Reveals alien nests.

Cargo is a fun choice. You get a free bonus and all of them are really good. All of these heavily favor an advantage for the early game, so it is best to think about the first focus as a Colony. Hydroponics and Machinery are for players who plan on growth, expansion, and a powerful mid or late game. Weapon Arsenal is a power play for someone who thinks that their early turns can be leveraged into an aggressive advantage against their opponents. Laboratory is for players that want to trade, and settle new cities immediately. And Raw Materials is for players that want to focus on the Health of their Colony.

## Cargo Choices

- **Hydroponics**: +1 Population in your first city
- **Laboratory**: Free Pioneering Technology
- **Raw Materials**: Free clinic in your first city
- **Weapon Arsenal**: Free soldier
- **Machinery**: Free worker

### Advanced Game Setup

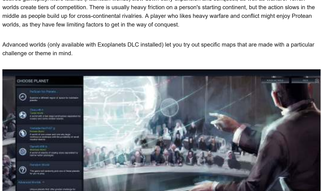
As you set things up, look in the upper-right portion of the screen to find an Advanced Setup button. This hides all of the internal game features that players don't normally mess with. Go there to decide exactly which enemies you want to face, where you want to fight them, and the rules for that match.

You can disable victory types that you don't like as much, alter the world to match your preferred interests, or take out specific civilizations that you're not in the mood to fight. If you enjoy bright, green worlds, use the "Lush" Map Terrain setting.

The advanced game options aren't required to enjoy your game; they're just an extra way to control things for people who know exactly what they want out of *Civilization* games.

Finally, choosing a planet to land on. This is another playstyle choice, it would be wise to pick a planet that best suits the desired gameplay. More islands (Atlantean worlds) slow down early expansion and conquest, as well as warfare. Terran worlds create tiers of competition. There is usually heavy friction on a person's starting continent, but the action slows in the middle as people build up for cross-continental rivalries. A player who likes heavy warfare and conflict might enjoy Protean worlds, as they have few limiting factors to get in the way of conquest.

Advanced worlds (only available with Exoplanets DLC installed) let you try out specific maps that are made with a particular challenge or theme in mind.



With that, you now know everything to set up a great match. Before you begin, though, you should take a deeper look at each of the available sponsors and leaders. Some of this information is fun flavor and backstory, but you should also study the leaders so that you get a feel for how the AI plays them. This helps you to recognize trends, motivations, when they're going to attack you, and so forth.

## Getting to Know Your Opponents

# About

There are eight Colonies vying for control of this new world. Learn about the strengths and weaknesses of each so that you know how to outmaneuver all of your foes.

Getting to Know Your Opponents

# People's African Union

- **Sponsor benefit**: +10% Food in growing cities when healthy.

The chartering of the People's African Union was the culmination of what has been called the sub-Saharan Renaissance. A new generation of political thinkers and cultural organizers used the chaos of the years following the Great Mistake to build pockets of good governance and stability. Then, they gradually expanded and combined forces, focusing on continental self-reliance, traditional values of communalism, and a newly developed sense of shared destiny. These states were able to create strong stewardship of Africa's ample mineral and biological resources and counter the ecological damage within their borders. The People's African Union was one of the earliest backers of the Seeding, and it has profited greatly by its equatorial positioning in serving as a launch base for many expeditions.

## PLAYSTYLE

The People's African Union is a wealthy ally in terms of its size and population. Its leader, Barre, is good at growing a small colony into a large country without wasting too much time. Expect his focus to be on mostly peaceful expansion while developing his cities. He won't like warmongers or alien killers most of the time, and these traits are likely to get you in trouble with him.

If you're playing as the People's African Union, exploit your strong growth potential. A 10% Food bonus is substantial, but you must watch out for unhealthiness in your nation. Too much of that, and your bonus goes away, leaving you in a deficient position compared with your rivals.

Don't expand too quickly! Make sure that your cities grow large and healthy before settling new ones. This ensures that you keep your bonus going and that you have high populations to work with. Prosperity virtues are well suited for this style of play.

## SAMATAR JAMA BARRE

- **Strengths**: Diplomacy, Growth, Health
- **Weaknesses**: Production

Barre is a variation on the "wise old chief" archetype. He is likely to be a trustworthy opponent and ally, a character whom players would prefer to favor rather than resist. He is slightly overweight and aging, with an air of benign neglect about his clothing and hygiene. He behaves in a cordial, beatific, possibly na•ve fashion, as he speaks in soft tones, smiles frequently, and shrugs off insults and slights. He doesn't get angry with others as often as other Leaders. Should you stab him in the back, he appears sad and resigned, as if you hadn't grown up the way he had hoped, rather than furious and vengeful. That doesn't make him a pushover, however: he holds the line against his enemies with ruthless efficiency, especially when his people are threatened. Still, he consistently operates with an air of unflappable optimism and good humor.

His given name means "doer of good" in Somali; the family name is a line of historical Somali diplomats.

Avuncular, genial, affable, affecting an air of bonhomie, Samatar Jama Barre wished to be addressed as Kubwa Mjomba ("great uncle" in Swahili) by those he both commanded and protected. Despite his seeming benevolence and absent-minded demeanor, he was nonetheless an efficient and effective administrator, an able diplomat, and ruthless when necessary. Barre was amused and likely pleased when detractors likened him to the traditional African village chieftains of the past, claiming him to be a throwback and out of step with the new world in the wake of the Great Mistake. But the People's African Union made a wise choice when he was selected as one of their colony governors.

Rising from the poverty and violence of the inundated streets of Hargeisa, Samatar joined the African Union's resurgent military forces, eventually rising to the rank of Major. For three decades, he served in a variety of increasingly important posts, military and civilian, rising steadily in both ability and influence. He was able to overcome lingering tribal tensions, dealing with the polyglot cultures of Africa with both reverence and common sense. Barre displayed those same diplomatic skills when negotiating with those outside the African Union, and he brought to culmination several international agreements that helped propel the Union's colonization effort before he was selected to command one of those colonies.

Barre proved to be just as efficient against any perceived threat to the well-being and safety of those under his protection. In dealing with nascent warlords, religious fanatics, and local dictators, he either brought about an equitable peace or bludgeoned them into submission. Although never known as a military genius, his troops were extremely loyal to their "great uncle" and fought with abandon for his approval. Samatar Barre never lost a battle, although he took no credit for his victories and viewed them as lamentable necessities.

Though not religious himself, he was tolerant and accepting of others' religious traditions. In the end, it was this tolerance, coupled with his intellect and personality, that would shape the African Union's colony on the new planet.

Getting to Know Your Opponents

# Pan-Asian Cooperative

- **Sponsor benefit**: +10% Production toward wonders and +25% worker speed.

Although badly affected by the Great Mistake and the upheaval that followed, the Pan-Asian Cooperative emerged as a strong transnational entity. Centered on the old People's Republic of China, the Cooperative spans Asia from the Mongolian steppes to the megalopolis of Bangkok, with even former regional rivals South Korea and Japan laying their differences aside to work in the framework of the Pan-Asian Cooperative. It is a powerhouse of industry, home to world-class R&D and high-tech corporations, and boasts a skilled population living in Earth's most populous cities. Although relatively new to spaceflight and space colonization, the Pan-Asian Cooperative has quickly caught up to or passed the old Space Bloc as it embraces the Seeding.

## PLAYSTYLE

Daoming Sochua leads the Pan-Asian Cooperative, a group that develops their cities quite well for research and culture. Expect them to keep up well in the science race, with modern military units and good locations to defend.

The downside of Sochua's leadership is that she won't field enough of those nice, modern units. She's not much of a killer, so you're in great shape against her if you can survive the early push into her territory. Don't attack quickly if you're going after the Pan-Asian Cooperative. Instead, lure them into battles outside of their cities and orbital territory. In the open field, they're weak and vulnerable. Beat off this early rush, and then head into the Colony's juicy interior.

Or maybe you're looking to join the Pan-Asian Cooperative? They have a similar playstyle to Egypt on the last *Civilization* release. Gain major points and advantages by securing multiple wonders without as much investment in time or production. This makes it easier to develop good cities and a strong empire. However, it makes you a clear target for both human and AI opponents. Do not neglect your military. It's okay to play things defensively, but don't be a pushover. Your wonders won't mean anything if you lose your cities.

Consider starting off with a free worker. The Pan-Asian Cooperative bonus cuts at least a turn off of most activities that workers need to accomplish. This lets you grab substantial bonuses in your early cities that much sooner.

## DAOMING SOCHUA

- **Strengths**: Culture, Energy, Science
- **Weaknesses**: Military, Diplomacy

Sochua is a driven, overachieving scientist-engineer who is willing to push ethical boundaries in pursuit of scientific advances. She is particularly proud of her Chinese cultural heritage and encourages the old traditions in everything from dress and housing to diet and manners, albeit adapted to the alien environment of the new planet. This dichotomy is reflected in her dress, for she often wears traditional Chinese clothing topped with an open white lab coat. She is a brilliant woman who is one step short of a "mad scientist," and she made her mark in research on and exploitation of new energy sources. She is relatively youthful[md]in her late 30s[md]but accomplished. She has no close family or confidants, only underlings. Polite but stern and demanding, her dealings with non-Asians range from dismissive to aggressive. She typically keeps her emotions inscrutable and under control but may display them if she thinks she can gain an advantage by doing so. She can be a loyal ally or a fierce adversary, depending on her own agenda.

Born to a Chinese mother and Cambodian father, Daoming Sochua was raised in the traditions of both cultures. She tested at genius levels at a very young age and progressed rapidly through the state-sponsored school systems for gifted children. She quickly surpassed her parents, who were both university professors in the sciences, and her bright siblings in her studies. Entering university in her early teens, she proved focused and motivated to dominate her older peers.

By the age of 30, she held four PhDs in electrical engineering, nano-electronics, nuclear physics, and bubble fusion. Pioneering groundbreaking methods for extracting energy from sources heretofore thought exhausted, as well as deep-sea and off-world resources, Daoming Sochua was presented with numerous international awards before joining the Pan-Asian Cooperative's Bureau of Scientific Revolution. She was specifically recruited by the Cooperative Space Agency for her experience with energy research and unconventional power systems. Daoming was brilliant, driven, and single-minded in her roles, whether as a researcher or administrator.

When she was appointed to head a number of innovative (and perhaps dangerous) projects undertaken by the Cooperative, she revealed a talent for administration. Motivated by the Seeding, she volunteered to head one of the missions to colonize other planets for Pan-Asia. At the time, she was in charge of research studies aimed at overcoming the Inflection Point, knowledge that would serve her in good stead in her new role. Throwing herself into her role as mission leader, Sochua brought her characteristic single-mindedness to decisions on the outfitting and launch of "her" colony, driving her crew and staff unrelentingly. Although not beloved by the colonists on the one-way trip, she was highly respected, which was all that Daoming Sochua expected or demanded.

Getting to Know Your Opponents

# Kavithan Protectorate

- **Sponsor benefit**: Cities and Outposts acquire new tiles twice as fast.

After both the Great Mistake and rising sea levels displaced its population, many commentators were quick to dismiss the Indian Protectorate--to their great loss. Whereas other countries might have been content to wallow in despair, the Indian Protectorate underwent one of the greatest cultural transformations that a civilization has undertaken, becoming culturally dynamic, indomitably optimistic, and cleverly resourceful. With one-sixth of Old Earth's population within its borders, and under the charismatic, enlightened guidance of syncretic religious mystic and prophet Raj Thakur, the Protectorate has launched a space program that is the pride of its people. The program is celebrated in song and movie, with every boy and girl from Punjab to Tamil aspiring to work on "our Prophet's Dream." Now Raj Thakur's only child, Kavitha, has assumed her father's mantle. Work continues on the Prophet's Dream and life on new worlds.

## PLAYSTYLE

Kavitha Thakur is the epitome of a peaceful expansionist. She's capable of declaring war, but it's likely that you're only in danger if her borders slam into yours and your treatment of aliens and other Leaders goes against her. Use trade convoys to keep her happy, and you might end up with a loyal friend instead of an enemy whom you can't trust.

If you're playing against Thakur, give her a little time to overexpand. She'll throw cities all over the place, leaving them somewhat exposed. That makes her a valuable target once you have your military geared up and ready to go. Someone else might beat you to the punch, but that can be turned into a victory, as well. You can always let them tire themselves out in the early phases of the war, join Thakur by declaring war against her opponent, and "defend" her territory by claiming the cities that she's lost. You can always eat the rest of her cities later, as she'll be in even worse shape than before due to the first war.

When playing as part of the Kavithan Protectorate, your job is to expand quickly but safely. This isn't as easy as it sounds. Fast expansion is easy with this sponsor, but that leads to low Health and a higher risk of invasion from enemies who are jealous of all your new land. Always defend your colonists and their outposts as well as possible, and augment your city's natural defenses with extra units. Consider trade routes to more martial stations so that you can beef up your military without having to sacrifice extra production time in your cities.

## KAVITHA THAKUR

- **Strengths**: Growth, Culture
- **Weaknesses**: Military, Infrastructure, Science

A revered religious icon thrust into a position of both political and military power, Thakur is calm, almost to the point of being detached, as if she exists in two places at once. Although she appears young, she is likely very old; she speaks slowly, carefully considering her words and drawing on decades of memories and experience. Her goal is a peaceful coexistence to heal the wounds endured by the generations following the Great Mistake. Insults and aggressive tones are meaningless to her and fall on deaf ears. Her responses are almost always cordial, thoughtful, and even-handed. However, if driven far enough, she will use the sheer numbers and devotion of her followers to protect those who share a similar ideology.

Although Western scholars are almost uniformly incredulous, the followers of Kavitha Thakur hold fast to the claim that she was born on the first day of June, 17 years before the events of the Great Mistake, making her well over 200 years old. More reliable estimates concede that she may be considerably older than the average life expectancy.

As the daughter of revered northern mystic Raj Thakur, Kavitha had a strong spiritual connection at a young age. She often experienced near-catatonic states of "disembodied concentration," during which she was said to have had visions of the far future. To the devotees of her father, this only served to solidify their belief that she would one day supplant him in his role, as he himself had declared upon her birth.

Nearly 80 years after Raj Thakur's journey to the Kush, Kavitha's followers numbered in the hundreds of millions as the stories of her and her father became legend among desperate and forgotten peoples. Despite a number of political and military candidates tailored for the position, when it came time to elect a leader for the now geographically diverse region under their control, no one saw a means to overcome Kavitha's popularity. Swept up in a nearly uncontested vote and thrust into a position of political authority she neither desired nor prepared for, Kavitha focused her early efforts on what she knew best: humanitarian campaigns. She focused her vast resources on repairing the damage done by her predecessors to the people of the Indian subcontinent.

Getting to Know Your Opponents

# Franco-Iberia

- **Sponsor benefit**: Gain a free Technology for every 10 virtues developed.

When the Eurozone collapsed after the Great Mistake, Franco-Iberia emerged to fill the gap the European Union left behind. Now this transnational empire spans much of the area around the Mediterranean, regarding itself as the cultural guardian of the best of Western civilization. Its prosperity made it a beacon for refugees, and its sagacious social policies meant that it continued to grow and develop while other Colonies struggled to regain what they had once held. Now home to many of the great minds of the age, Franco-Iberia views the Seeding as the next logical step in the process of leading the world by example. The Rock of Gibraltar, it is said, is the border of the solar system; Franco-Iberia is ready to continue beyond the end of this Old Earth.

## PLAYSTYLE

Who is afraid of dignified, elderly Élodie? Sensible leaders. Sane people. The observant. Élodie may not look like a fierce opponent, but her quiet style of governance is more effective than you might realize at first glance. Her ability to pursue virtues (and get free technology periodically) ensures that she has a flexible nation that reaps many bonuses from any direction she takes. The Franco-Iberian European Union can go in many directions, as the match dictates. Free tech can be chosen from anywhere on the tree that is available, high culture leads to similar flexibility, and Élodie's interest in energy lets her buy whatever she can't build directly.

Don't let Élodie build quickly off on her own. This is a critical way to lose your game, even if you are well on your way to a perfect domination ending. "Ah, she just got her Mind Flower. We're cool for a while." No, you aren't.

Treat the Franco-Iberian European Union with the respect it deserves. They aren't a rampaging force that you must defend against, but they'll have energy to spare, a military of decent standing, and no overt weaknesses. They're a tough nut to crack. Make sure to pressure them long before you think that you need to. Use spies to get information and wealth from them, and then join another nation when they're interested in going after Élodie. Your goal isn't just to get land; it's to knock her down a few pegs before she gets so tough that it's "not worth going after her."

So how do you win with the Franco-Iberian European Union? Patience. Beeline toward research that gets you Culture as quickly as possible. The free techs that you gain are so far apart that they're helpful without being mission-critical. Instead, it's the virtues themselves that are your big draw. Pick a direction that you want, and push hard with your virtues to make it happen. The Franco-Iberian European Union can be a military power, a peaceful expansionist, a researcher, or whatever else you need. That is very nice in a multiplayer game, when enemies won't be sure what to make of you. Use that. Don't be the opponent they're expecting. Switch categories of virtues after you've gotten what you need in the early game, and either heat up your military if your neighbors look soft or become a quiet building powerhouse if everyone else starts fighting things out.

## ÉLODIE

- **Strengths**: Culture, Energy
- **Weaknesses**: Health, Science

Known only as Élodie, she traces her bloodline to the aristocrats of France and Italy. In her mid-60s, Élodie is elegant, well spoken, and aristocratic; she is polite but reserved when dealing with those she perceives as social inferiors and gracious with her "equals." She is chic and elegant in dress and coiffure, adding her own stylish touches to even the most mundane and pragmatic wear, like a spaceship jumpsuit. However, left to her own tastes, she would tend to favor the latest styles and have an extensive wardrobe, changing her clothes frequently to suit the situation. Élodie is multilingual, with the affectation of dropping words and phrases from the Romance languages into her dialogue no matter which tongue she is speaking. Élodie is slightly flamboyant in her mannerisms and gestures, akin to the nobility of old Europe. Well educated and sophisticated, she also tends to allude to works of great art and literature in her conversation, with the occasional *bon mot*. Velvet with a hint of steel, Élodie strives to be admired, as well as respected, by other leaders[el] but she will settle for feared if necessity dictates.

Long wealthy, Élodie's lineage traces back to the nobility and privileged elite of France and Italy a millennia before the Great Mistake. Her family's prestige and influence was not, however, based on its peerage but rather on the immense fortune it had amassed over the previous two centuries from its holdings in agriculture, food processing, pharmaceuticals, and textiles. Opportunities since the Great Mistake have made it even richer. Its pharmaceutical operations were critical during the "super bug" pandemic after the Great Mistake, and the family farms, orchards, and vineyards in Portugal, France, Sicily, and Greece remained relatively untouched by the fallout, providing ample income from food production.

Born in Europe's foremost fertility and maternity clinic in Braga, Élodie was her parents' only child. Raised in luxury along the Cote d'Azur and Costa del Sol, Élodie became a media darling as a teen, although she was not always portrayed in a flattering light. Reaching maturity, she parlayed that exposure and her experience with the press into a platform for her politics and cultural cachet. Although raised in the Catholic traditions of the New Papacy, Élodie professed to follow no specific religion. She was, however, a staunch monotheist and brought her faith into all her dealings.

Accused by her detractors as an isolationist and a European elitist, Élodie certainly possessed a famously acerbic tongue and quick wit. A strong believer in the value of the Western cultural tradition, she believed that it was up to the educated European elite to guide the masses for their betterment, ensuring the survival of high culture. The best way to do this on Earth was the independence and sustainability of the new Union. More vital, in Élodie's view, was to ensure that Franco-Iberia planted colonies off-world.

When Franco-Iberia announced its plans to launch a "Seeding," Élodie used her considerable influence and family connections to get her name on the short list for command. Using her media savvy, she managed to get the mass media's backing, making her a popular choice among the citizenry of the Union despite her age. Beyond the operational matters (and Élodie had a knack for choosing able lieutenants), she also personally oversaw the construction of the *Canon*, the definitive collection of Western art, letters, and music that became the template for inclusion in the cultural banks of other Seeding projects. Hence, when the colony ship set out, it not only carried people and technology from Franco-Iberia but also some of old Europe's great art works and schematics for duplicating many of Europe's great architectural wonders. Élodie's new colony was designed not only to prosper but also to look good doing so.

Getting to Know Your Opponents

# Slavic Federation

- **Sponsor benefit**: Orbital units stay in orbit 20% longer, and the first one launched grants a free Technology.

Polyglot, multiethnic, and spanning Eurasia and Eastern Europe, the new Slavic Federation covers territory beyond what the czars could ever have dreamed. Although rich in resources, much of its land was barely developed until the time of the Seeding, and the Slavic Federation has grown wealthy with providing the materials for many space programs around the world. Politically fractious but united around its signature massive space engineering projects, the Federation sees itself as the keepers of the last true national space program. It continues to rise from the wreckage of the Great Mistake[el] one rocket, one space station, and one starship at a time.

## PLAYSTYLE

Vadim Kozlov is a direct man. He'll field a good army, build well-protected cities, and bombard the heck out of anyone who tries to mess with him. He's one of the more likely leaders to go after you if you present any sign of weakness. Keep your borders secure, and settle cities defensively if they're near his land. Use hills and rough or impassable terrain to limit access to your territory.

As with most Colonies, you can buy time or even friendship by trading heavily with Kozlov. Let him direct his energy toward other rivals, and watch for any moment of weakness. Kozlov's best strength is in his great military and defensive cities. If he loses the first of those during a war, be ready to take the latter from him before he recovers.

Should you join the Slavic Federation, be prepared for a life of hard work. You won't be sitting back on your passive bonuses and waiting for an easy victory to come to you. The Slavic Federation gets most of its power from the skies. Grab Technology quickly to ensure that you have access to a leaf tech that has affinity experience that you want. If your explorers find a free orbital, launch it, and then get that affinity tech to have your soldiers become marines much sooner than everyone else. Use that opportunity if it becomes available, and try for an early push against an opponent whom you don't like having on your border.

Later in the game, devote a major city to orbital creation. Pop out good orbitals, and use them to supplement your city's natural resources and defenses. You can afford to be more aggressive than most because the Slavic Federation is so nasty on defense. Having orbitals to protect your troops is a great thing, and your cities won't be defeated easily if you take advantage of that. Let enemies kill themselves in your territory, and then expand back into theirs once their units have been squandered.

## VADIM PETROVICH KOZLOV

- **Strengths**: Military, Infrastructure, Orbital Use
- **Weaknesses**: Health

Kozlov is the epitome of the self-made man in the new order: after a childhood in the industrial cities of Poland and Belarus, he rose through the ranks of the Roscosmos program and eventually became known as the "Hero of the Slavs." He is a quiet, stoic, and efficient leader, personifying the authoritarian military that figures so prominently in the government. From his days in space, he is careful, analytical, and direct; he expects those same qualities from everyone. In his early 40s at the time he was selected to head the colony, he was physically fit and mentally sharp. He is a "by the book" career officer with absolute dedication to his command and the Slavic Federation. He is equally comfortable in a spacesuit or uniform but eschews most casual or civilian dress. Save for his insignia of rank and nationality, he wears no personal jewelry or trinkets, not even his wedding band. His gestures are minimal, and he uses his voice as an instrument of command: soft when consulting or giving advice, stentorian when giving orders or angered. Whichever tone he may use, however, people tend to listen.

The most celebrated cosmonaut since Yuri Gagarin, Vadim Kozlov came from a working-class family but rose to heroic stature in the years before the Seeding. The eldest son of parents who labored as itinerant steelworkers and welders, Vadim acquired his limited formal education in industrial cities scattered across the Federation: Krakow, Bydgoszcz, Lublin, Minsk, Vitebsk, Donetsk, and Dnipropetrovsk. Vadim answered the call for construction volunteers issued by Roscosmos, the resurgent Federation space agency. Minimally trained in zero-G construction methods, Kozlov was sent to work on building the second Federation Earth orbit station. He was soon promoted to foreman of his shift due to his aptitude for weightless labor combined with practical experience in heavy construction.

Inducted into the armed forces and immediately given the rank of Colonel, Vadim took advantage of part-time educational programs to gain a comp diploma in aerospace engineering. Over the next decade, he became the public face of the Federation efforts to exploit the vast resources of space. Vadim Kozlov was the first citizen of the Federation to set foot on Mars. For this, he was made a "Hero of the People" and promoted to General in Roscosmos. Six years later, he led the mission to map Sol's asteroid belt in preparation for mining operations; for this success, Kozlov was awarded a second Hero's medal and promoted again.

Incredibly popular among the working class, a devoted family man, and fiercely loyal to the Slavic state that had rewarded his hard work, Kozlov eschewed offers to enter politics or move into the civilian realm. At the age of 35, he was overseeing Roscosmos construction projects on Earth, Mars, and in space. He was not reticent in pitching in personally to do manual labor during inspections of construction sites on Earth, elevating his reputation even more as a self-effacing, self-made, successful servant of the people. Both professionally and personally, Vadim Kozlov appeared content.

Yet Vadim made no effort to disguise his desire to return to space. In his early 40s, when the Slavic colonization effort was launched, Kozlov volunteered to head one of the missions. He was promptly accepted and threw himself into the role of mission commander with the vigor and consummate professionalism for which he was famed. It has been surmised that his beloved wife urged him to volunteer, as she hoped to give their children opportunities on a new world not available in the overcrowded and calcifying Slavic Federation. Whatever the truth of such rumors, in the colony mission, Kozlov was able to combine all the loves of his life: space travel, exploration, engineering, family, and Federation.

Getting to Know Your Opponents

# Polystralia

- **Sponsor benefit**: +2 Trade Routes available for the Capital.

When they realized that the rising seas were creating a common threat, Australia, the Pacific archipelagos, New Zealand, and the major South Asian Colonies united to form the Commonwealth of the Pacific, better known as Polystralia. Together, these Colonies tried to safeguard and preserve their coasts and the unique biodiversity of the Pacific and South Indian oceans, and they became a world leader in climate engineering. Long a crossroads for trade, Polystralia's economic power stems from its unique relationship with the great oceans. Its port cities bustle with freight cranes and train shipments, as well as new ideas and technologies. Resilient and rich, Polystralia's relatively small Seeding program is one of the best financed and most focused.

## PLAYSTYLE

Hutama thought that he would make a bad expedition leader? Bah, nonsense! Hutama is a man with many friends and few enemies. His Colony's focus on trade keeps them out of trouble most of the time, earning them a huge amount of resources in the meanwhile. Expect Polystralia to be a late-game powerhouse if you leave them alone. They have all the tools that they need to explode in the early- to mid-game. They'll have energy to burn, resources galore, and few real problems from neighbors compared with most.

Don't let them get into that position. Use Hutama's weaker military against him. Gobble up his land while it's still soft.

If you're playing as Polystralia, it's time to earn! Use trade routes as a dynamic way to shore up any weaknesses in your nation. Settling a new city? Use internal trade routes to get it up to speed at a blinding rate with free food and production. Nothing new to develop in terms of cities? Trade with other Colonies to keep the peace, bring in Energy, and earn free Science, as well.

Polystralia can be incredibly flexible under the proper leadership.

## HUTAMA

- **Strengths**: Diplomacy, Energy, Health
- **Weaknesses**: Production, Expansion

Hutama first came into public notice as a 20-year-old college student at the Universitas Sumatera Utara in Medan, Indonesia, heading a grass-roots movement protesting differential resources assigned to reclamation projects across the Commonwealth. Ubiquitous on social networks and media broadcasts, Hutama's cheerful face, trilingualism, and informal quips endeared him to audiences across the Commonwealth. From Perth to Vanuatu, Hutama was instantly recognizable, parlaying this into a career in politics. He is urbane and polished, a natural diplomat with a flair for the dramatic. Empathy, humility, humor, and respect are all virtues that define Hutama in his interactions with others, and his considerate tone and linguistic training makes him an ideal diplomat and proxy for his people. Although he is calm by nature and his primary concerns are the health and well-being of the colonists, he is a pragmatist and will use force when warranted in his view. He is also a savvy economist and has even mastered the intricacies of modern warfare and trade as diplomatic tools.

Elected to the Commonwealth Parliament before his 30th birthday as a junior member of the opposition, he famously launched the Platypus Inquiry, which ended up splitting the majority of the coalition. The old government was toppled and a new government was ushered in, with Hutama as Interior Minister. Once in high office, he continued his work against corruption, crony contracts, and waste, all while retaining his famous irreverent, informal sense of humor. His weekly Internet broadcast "Question, Minister" mixed populism, no small amount of flashy production, and occasionally serious politics. Hutama is credited with delivering the popular vote needed on a referendum on funding Polystralia's merchant fleet, on being an early backer of the Tahiti2 Island Project, and on providing universal access to fresh water.

Hutama's "spread the wealth" populist politics were key to his success, but it would be wrong to assume that these were cynical ploys. His sharpest criticisms were always reserved to people exploiting the public well-being, and his own personal charities were devoted to alleviating suffering throughout the Commonwealth. Gadfly though he might be on the screen, this was motivated by a strong sense of public justice.

Notably, Hutama seems to have misread public attitudes about the Seeding. After publicly calling into question the Commission Report on the Inflection Point, he resisted Polystralia's efforts to strengthen its space program and start Seeding construction. After a series of sharp political defeats (and a decline in his weekly show ratings), Hutama reversed his position, although his support carried something of a satirical edge. But when the time came to nominate leaders, Hutama's loyalists across the Commonwealth put his name forward[md]even after Hutama devoted an entire program to reasons why he would be a bad expedition leader.

Getting to Know Your Opponents

# Brasilia

- **Sponsor benefit**: Units have +10% Strength in melee combat.

Its development checked briefly by the Great Mistake, Brasilia roared back as the preeminent South American economic entity and a world-class military power. Brasilia's military was the backbone of many peacekeeping forces deployed to restore order, and the nation was able to establish itself as a major trading partner with the rest of the world. With the wealth of the Andean highlands and the Amazon acting as a highway to the continent's interior, Brasilia experienced tremendous growth and development as order returned to the world. An early adopter of the Inflection Point theory, Brasilia's aerospace industry and veteran air forces allowed them to launch the very first Seeding expedition.

## PLAYSTYLE

One look at Rejinaldo de Alencar-Araripe tells you that you're dealing with a lifetime soldier. Don't mistake him for a total warmonger: this isn't Earth, and its leaders don't always have Earth's sensibilities (or lack thereof). It's often quite possible to negotiate with de Alencar-Araripe and avoid conflict, but you won't want a small military or a vulnerable border to be involved in the discussion. Keep your military deployed near de Alencar-Araripe's border to discourage any ventures into your land. His people have a modest bonus in direct combat. It's not enough to win a war by itself, but he'll have enough troops to exploit that advantage unless you're a good defensive fighter.

Playing as Brasilia is quite fun if you're a direct domination player. Though you can take any of the other Sponsors into battle, Brasilia is the best choice out of the bunch. Their melee bonus makes it easier to take and hold cities, fend off enemies in rough terrain, and win wars with fewer casualties. This leads to an upward spiral because your units start off better than their rivals, survive more often, gain more levels, and become even more lethal in the next war.

Take Might virtues to get an even greater leg up on your opponents. Faster levels and quick training help you put a great army out in the field, and the bonuses against aliens gives you something to attack in the early game if there aren't any rival Colonies nearby. You want to have multiple units up to Level III by the time any serious threat gets close enough to conquer.

## REJINALDO LEONARDO PEDRO BOLIVAR DE ALENCAR-ARARIPE

- **Strengths**: Health, Military, Production
- **Weaknesses**: Diplomacy, Growth

Contrary to expectations, de Alencar-Araripe appears considerate, understanding, and unassuming in dealing with both his own people and outsiders. Usually dressed in a simple military uniform devoid of medals or rank, he eschews most of the trappings of leadership, reflecting his humble beginnings and rise through the enlisted ranks. He is slightly built, perhaps wiry, reflecting the malnutrition and illnesses of his childhood. In his early 70s, he may be elderly, but he is still fit and far from feeble. He carries himself with military bearing, ramrod straight and with precise movements, although he has the habit of punctuating his dialogue with flamboyant gestures. His use of language is equally precise and careful, and he is erudite if not verbose. De Alencar-Araripe is always busy, insisting on overseeing the work of his colonial officers and officials, and he appears distracted when speaking with others. He also tends to be pessimistic, assuredly because of his life experiences.

Said to be the finest soldier ever produced by the Western hemisphere, Rejinaldo Leonardo Pedro Bolivar de Alencar-Araripe began his celebrated career at the age of 16 by enlisting in Brasilia's Corpo de Fuzileiros Navais, lying about his age in the finest military tradition. His first assignment as a Marine was in support of a Security Council operation in northern Myanmar, where he saved his platoon, called in air support, and coordinated evacuation after their transport was shot down. His ascent after that was meteoric, rising quickly to Sargento and then attending the prestigious Academia Militar das Agulhas Negras to become an officer. Commissioned as an Aspiriante at the outbreak of the Peshawar Crisis, he was part of a continent hastily sent to Asia to help quell the crisis and deliver humanitarian supplies. Again, his heroism was proven at the Battle of Route Blue, as he stepped into command after the first, second, and third commanders of the forces protecting the refugee camp were killed in battle.

A complete listing of his military accomplishments would exceed the scope of this article, but there were few battlefield commanders held in as high regard as de Alencar-Araripe. Resisting staff duty until it became impossible to do so and still serve his nation, de Alencar-Araripe has been in no less than nine combat tours, seven of them as a commander on the front lines. His talent for planning and improvisation with limited resources are legendary, and, when not serving in combat, he has been a fixture at Agulhas Negras, training the next generation of military minds.

Somehow, in this illustrious military career, he has found time to write the seminal volume of military sciences in the post-Mistake world: the three-volume *Principles of Modern Warfare* and the slimmer *On the Training and Conduct of Soldiers* (for enlisted soldiers and military cadets). As proponents of special forces, total victory, aerospatial power projection, and professional NCOs, these volumes have served as the blueprint for infantry doctrine around the world, their pithy maxims backed up by examples from history and de Alencar-Araripe's own career. From anyone else, these books would be grandiose; in de Alencar-Araripe's case, they are statement of fact.

A national hero for Brasilia, his name came quickly to the top of the list for commanders of the first Seeding projects. Despite a career "in the mud," de Alencar-Araripe was endorsed by the Brasilian Air Force and the Space Department. Never one to decline a chance to serve his country, de Alencar-Araripe honed the first Seeding to leave Earth's orbit into the professional, dedicated force that was the hallmark of his military career.

Getting to Know Your Opponents

# American Reclamation Corporation (ARC)

- **Sponsor benefit**: Covert operations are 25% faster and cause 25% more Intrigue.

The third largest economy in the world is the American Reclamation Corporation (ARC), Old Earth's first and most powerful megacorporation. Beginning as a geo-engineering firm specializing in environmental risk mitigation, ARC is credited with designing and carrying out the recovery plan that saved North America from dissolving after the Great Mistake. Although rumors abound about ARC's methods and corporate shenanigans, there is no doubt that it has become a power unto itself, receiving grudging respect even from those who denounce it. Now ARC is involved in almost every Colony's Seeding project and recovery plan. From crop science to tidal power generation to security contracting, ARC has a project or product for every problem. Unique among Seeding projects in that ARC's colonial ventures are entirely private, many other Seeding programs rely on ARC financing and products.

## PLAYSTYLE

Suzanne Fielding is one of the most ruthless leaders in the game; she'll sell you out in a moment's notice, even if you've been friends in the past. Her capable spies add the potential for dangerous intrigue, and her amoral play means that she's a tricky neighbor to have. One of her biggest weaknesses that she has is that she doesn't keep any friends for long. She'll sometimes goad someone into joining her for a war, but just as often, she's the one getting attacked. For an easier time dealing with ARC, play nicely as long as you safely can, and join in whenever anyone else wants to pound them. With this tactic, you get closer ties with the other attacker, and ARC must fight a two-front war.

Playing as ARC is much more fun than fighting against them. This sponsor begs to be used for constant dirty tricks. Their bonuses are quite synergistic because you get to launch more covert operations and then have them cause even more Intrigue on top of that. It's easy to get money, science, techs, or units from your agents' hard work. In the later game, even Colonies that can't attack directly can be laid low by top-tier spies. Stealing a domination opportunity by launching a Coup on someone's capital: priceless.

## SUZANNE MARJORIE FIELDING

- **Strengths**: Science, Infrastructure, Spying
- **Weaknesses**: Culture, Diplomacy

Egotistical? Paranoid? Cunning? Disingenuous? Suzanne Fielding has been characterized as each by historians, and ascribed many other personality traits, as well. Whatever the fact, she is an intense, driven woman who operates in total accord with her beliefs in conservatism, material progress, and economic realism. She is well dressed and groomed in the corporate mode, with an obvious commitment to impressing with her professional appearance and demeanor. While charismatic, her affability seems calculated to gain an advantage in business and political dealings. However, when thwarted, she can quickly shift to hostility and threats. Overall, whatever the circumstances, she strives to present the appearance that all is "going according to plan"[el] hers, of course. She rarely raises her voice's volume, either in excitement or anger, and strives to appear in control at all times. If she does speak loudly or with excitement, be assured that it is calculated, used as a tool as she does all other affectations.

Suzanne Fielding was the eldest of three siblings, all daughters, born on the Texas Gulf Coast to a Mexican-born mother and an African-American father. Her father was the owner of three hardware stores in the region, and Suzanne joined her father in running the business as a teenager. Accepting a scholarship to Louisiana State University, she graduated with honors and a double major in economics and accounting. Driven by a desire to help reclaim coastal lands lost to the rising sea level in her home states, she was hired by the relatively new American Reclamation Corporation (ARC) to an entry-level position. Both meticulous and daring, and surprisingly adept at corporate politics, Fielding rose steadily through the ARC Accounting Division until, within 15 years, she was heading several operations simultaneously as Operations Manager.

When ARC CEO Michael Modersky signed the Trans-Mississippi Recovery Initiative, he personally asked Fielding to oversee the governmental resource coordination, to which she turned her considerable acumen. It was Fielding who caught the accounting chicanery that led to the FBI's Operation Riverboat and subsequent political fallout. Guiding the government to continue funding during the roiling controversy that followed, Fielding also kept the Initiative on track and on time, such that when Modersky stepped down as CEO, Fielding (who had since been elevated to CFO) was the logical choice for CEO. Sidestepping the Board of Directors, Fielding's appeal to the shareholders enabled her to hold both the CEO and CFO positions for ARC, making her the most powerful woman in the most powerful corporation in the world.

With Fielding at the helm, ARC turned from retail and manufacturing to financial and other services. Fielding used the balance sheet and financial weight of ARC as a massive lever, engineering a series of shifts on Old Wall Street to unseat banks and exchanges. As ARC's capital reserves blossomed, many wondered what Fielding would do next. Few expected that she would announce ARC pursuing its own private Seeding venture, drawing on its vast engineering and manufacturing resources and gaining a waiver from the government to conduct private space operations. The biggest surprise was when Fielding announced she would personally lead the first such expedition. With enough money to buy the world, the woman who led ARC found more meaning in starting over with a new planet.

This chapter explains new game concepts, ones that are similar to older *Civilization* games, and then the few that are primarily unchanged. Some of these elements are large enough to warrant their own chapters, and you'll find out where to go to learn more about them. Others are vital but can be explained quickly enough that they're kept here for easy reference.

# ORBITALS

Orbitals are non-mobile units that are deployed from the cities that construct them. Each city has its own Orbital Coverage, and that determines how far away from that location you can deploy the satellite. The more coverage your nation has, the more capable it becomes in using orbitals for a variety of tasks.

Orbitals can remove or create miasma, enhance the various yields of tiles, grant defensive bonuses to your units, attack enemies, or give cities various direct benefits.

Most orbital technology isn't available in the early game. You must research somewhat deep into the Technology web to unlock these units. Many of them have strategic resource requirements, so heavy orbital users frequently battle over Petroleum and Titanium, both of which are major components of your orbital fleet.

Chapter 04: *Units* has an extended description for every type of orbital in the game, and it also has an explanation of orbital mechanics. You can also look through the Technology web to see where all of the orbital techs are hidden. However, for your convenience, the satellites are listed here, as well.

## Orbitals And Their Technology

- **All-Seer:** Dark Networks Protects a city from Intrigue
- **Deep Space Telescope Orbital Automation:** 25% city Science bonus and discovers "The Signal"
- **Holomatrix Civil Support:** +2 Culture for tiles under its skirt; provides cities within range 50% less intrigue from enemy Covert Agent activity.
- **Lasercom Satellite Orbital Networks:** 15% city Science bonus
- **Miasmic Condenser Alien Ecology:** Generates miasma
- **Miasmic Repulsor Ecology:** Clears miasma
- **Orbital Fabricator Geoscaping:** +1 Production for tiles under its skirt, adds strategic resources over time
- **Orbital Laser Cybernetics:** Ranged attacker: 70 ranged Combat Strength
- **Phasal Transporter Cybernetics:** Teleports units from friendly cities to areas under its skirt
- **Planet Carver Astrodynamics:** Ranged attacker: 120 ranged Combat Strength
- **Solar Collector Photosystems:** +1 Energy for tiles under its skirt, +20% Energy creation in cities
- **Tacnet Hub Communications:** +20% Combat Strength to friendly units and +5 HP Healing per turn
- **Weather Controller Climate Control:** +1 Food for tiles under its skirt, adds basic resources over time

# MIASMA

Miasma is the greenish cloud of spores that covers a game tile. Miasma can appear on any tile except those with water, ice, mountains, or settlements.

Non-alien units take 10 HP of damage per turn if they stop their movement inside Miamasa. This is reduced or eventually negated by technologies that improve your understanding of the world. Harmony players even begin to benefit strongly from the presence of Miamasa.

In the early game, do everything that you can to avoid prolonged actions inside miasma. Have workers rest after improving tiles inside the spores, and look for techs like Alien Biology (which lets workers clear miasma and work inside of it without taking damage).

Be warned: large areas of miasma often have increased numbers of aliens and alien nests inside of them. Do not approach these areas with non-military units or small groups of your troops. Make sure that you send tough upgraded units into such areas. Otherwise, you're going in at your own risk!

# QUESTS

Quests let you develop the specific bonuses for your buildings and grant free resources for your Colony. Many of these are triggered by your own actions (such as exploring or finding expedition sites, uncovering stations, or constructing new types of buildings). Others are given beforehand by timed/random events or are always a part of the game.

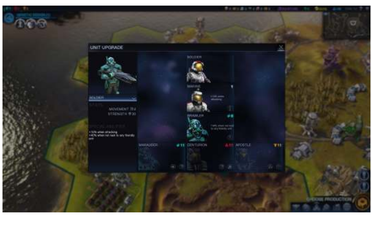
Use the Quests and Victories screen to see what's available currently, and read Chapter 09: *The Quest System* to find out everything that you can accomplish with quests. The system is immersive and powerful once you get used to it, allowing for a large advantage over rivals who haven't mastered it.

# AFFINITIES

The Affinity system gives you much more power than before to determine the types of units that your civilization fields. Additionally, there are several passive bonuses that you get from earning Experience in each of the three Affinities that the game tracks.

This is one of the most important subjects to master while learning how to play *Civilization: Beyond Earth*. This guide has devoted a chapter toward explaining the three Affinities and the bonuses that they provide. See Chapter 10 to find out more.

If you're feeling bold, you can also read through the chapter on units. Though the chapter is lengthy, it explains every unit that is given to each Affinity. By the end of that, you're going to have a very comprehensive idea of what each group is capable of doing.



# Changed Concepts

## PODS AND EXPEDITIONS (MORE INVOLVED THAN VILLAGES)

There are two types of free goodies that are present on the game map: Resource Pods and Expedition sites. The former are available from the very beginning of the game and are not seeded over time. As Colonies settle, they'll start to gobble Resource Pods up with their explorers and wandering military units. Once they're gone, that's it for the game's free pods.

Resource Pods contain bonus Culture, Science, Energy, or an occasional solar collector (an orbital that generates Energy over time for its area of effect). None of these bonuses are huge, but you can still get a fair boost to your early game if you're lucky and find multiple pods. They're especially powerful as a boost to Culture, which is normally quite slow to accumulate during those early turns. This can get Colonies one or two virtues before their time, allowing for faster growth or capabilities in that section of the game.

Expeditions are more involved, but they also contain greater rewards. You find Expedition Sites starting from the beginning of the game. There are only a few starting points of this type, but more generate over time. Destroyed stations and alien nests sometimes become Expedition Sites, as do the areas where orbitals fall from the sky.

While any of your units can pick up Resource Pods, Expedition Sites aren't usable by anyone except explorer units. This is one of the reasons that explorers are so useful to each Colony. Get them over to any derelict settlement, alien skeletons, crashed satellites, ancient tombs, caves, or Progenitor ruins that you find.

Explorers work on these tiles for a good amount of time, much like workers improve tiles. However, explorers don't have to be inside your borders to launch an expedition, so feel free to wander the world looking for these treasures.

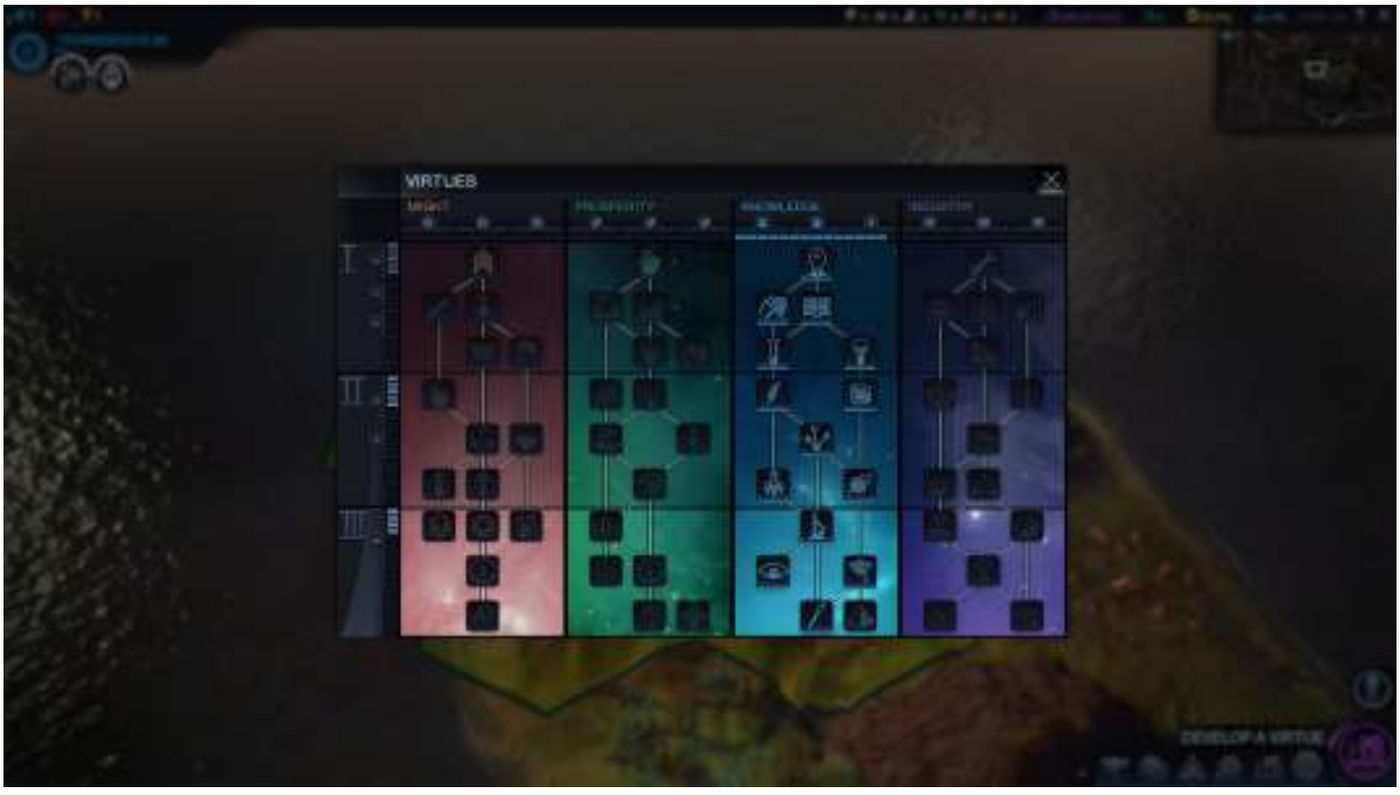
Other Colonies complain if you work on a site that's close to their borders. You have the option of apologizing after you get your loot, or telling them to deal with it. If you promise not to do this again, you get better relations with the civilization in question (and this is compounded if/when you keep that promise). Otherwise, they're going to be even angrier when you break your promise and keep making expedition sites that they think should be theirs.

Very few things in the game provide the same level of rewards as expeditions. You're able to get free units, affinity levels, technological progress, population points, Production, and other great things from these sites. Going after expedition sites is a major way to secure an advantage even once the early game has finished. Keep explorers around, having them at the ready in case new sites are discovered or are created.

# VIRTUES

Virtues let you control the passive bonuses that influence your Colony's growth and development. There are four types of virtues: Might, Prosperity, Knowledge, and Industry. All of them are useful to each player, but they obviously favor different aspects of your Colony's power.

Culture builds over time to let you choose more and more virtues, and the bonuses within each branch of the virtue system get more impressive.




## COLONIES AND SPONSORS

Chapter 02 discussed the various sponsors and starting options that define your early Colony. This is a somewhat distinct change from *Civilization V*. There, you chose a nation, and that determined your passive bonuses, unique buildings, and unique units. In *Civilization: Beyond Earth*, your sponsor is one of several choices during game creation, so there are way more options than ever before for customizing the exact Colony you're trying to forge.

Try a wide range of combinations to learn which combination is best for your style of play. Some of these are going to be better depending on the map you end up choosing, so think heavily about that before committing to your final selections.

# UNIT STATS AND DEVELOPMENT

Head over to Chapter 04: *Units* to learn about the statistics, training, and use of units in this game. This chapter explains what each unit can do and also goes over the general function of your military and civilian units.

# HEALTH

There is always a limiting factor that controls your cities' growth. This is essential for creating a game that isn't simply a matter of spamming colonists and settling as many cities as possible, as quickly as possible. This version of *Civilization* brings back health concerns. Your Colony experiences penalties for various tiers of low Health and gets bonuses for several possible levels of good Health.

## Tiers Of Health

- **Panicked:** -20 Health and beyond -10% Production, Science, and Culture, double Intrigue from enemy actions, 50% reduced city Growth, -50% outpost Growth
- **Troubled:** -10 to -19 Health -10% Production, Science, and Culture, double Intrigue from enemy actions
- **Shaky:** -1 to -9 Health -10% Science and Culture
- **Stable:** 0 to 9 Health +20% outpost Growth
- **Prosperous:** 10 to 19 Health +10% Production, +20% outpost Growth, -50% Intrigue from enemy actions
- **Utopian:** 20+ Health +10% Production, Science, and Culture, +20% outpost Growth, -50% Intrigue from enemy actions

Health decreases when you have more citizens and more cities. Each city costs more than several citizens, so you must be cautious about founding outposts when your Health is already low.

To get an idea where your Colony's Health is currently resting, look at the top of the screen. Highlight the Health symbol; it will be green if you are getting bonuses from high Health or red if you're in penalty territory. When you highlight your Colony's Health, you get to see a breakdown of your bonuses or penalties and the influences that give you your net Health tally.

Higher difficulty levels increase the challenge of the Health system by starting you with a lower amount of positive Health. Be even more careful about fast expansion when you move up to higher tiers of difficulty! Before founding many outposts, wait for more buildings that have Health bonuses.

Your Health gets even worse when conquering new territory. Enemy cities that are annexed cost you additional Health until the people have had time to adjust. There isn't anything that you can do to rush this, so watch out for your Health during successful combat campaigns.

Buildings with Health bonuses, constructed in all of your cities, make a huge difference in your Colony's total Health, but that isn't all that you can do. Certain wonders aid in this system, and Prosperity virtues are also amazing for improving Health. In fact, the final tier of Prosperity virtues comprises one of the best ways possible to have a massive nation that still is constantly healthy no matter what you do.

It's okay to dip into negative Health from time to time. This doesn't cripple your nation on a short-term basis. Instead, it adds penalties that really add up over time. If you get out of negative Health fairly quickly, there isn't a big downside to this. So, make sure to prioritize Health buildings when Health is getting low, but don't overbuild them. Having too much Health is wasted, and the bonuses stop coming in at +20 Health; it's easy to overshoot in the late game, so start to cut back heavily once you approach the positive Health cap.

## ENERGY (MONEY IN A NEW ERA)

Energy is what makes the world go around. You gain it through tile improvements like generators, Energy-producing buildings, foreign trade routes and specific station routes, and by working water-based tiles near rivers, oceans, or lakes. Some resources also yield Energy when your citizens work them.

Sometimes, you also get Energy from finding Resource Pods, pillaging enemy tiles, destroying alien nests, or negotiating for it during diplomatic meetings.

Thus, there are many ways to earn Energy. Think of it like you would money in other *Civilization* games. This is a resource that lets you quickly construct buildings, train units, and pay for all of these items over time. A strong economy can do all of these things without making sacrifices. A decent economy can pay for itself without any problems, but it cannot afford to waste Energy on fast construction or training.

Weak economies are a big danger to your society. They'll have trouble paying for buildings in your cities, and that limits the amount of development that you can do. Use workers to improve Energy yields on your tiles, and prioritize economic buildings when you're worried about your net income.

Your Energy is shown in gold at the top of the screen. Highlight it to see where your Energy is going (toward building and unit maintenance mostly, but also to roads). Additionally, you can see where you're getting your income. City connections, trade routes, and buildings are all vital to a healthy economy.

When your budget totally fails, your upkeep starts being funded by Science instead of Energy. That's a nightmare scenario;

you won't advance quickly, and your rivals are likely to pull ahead of you. Reduce the size of your military if you must, switch Production entirely over to economic buildings, and hope for the best!

A strange danger when it comes to Energy is to hoard too much of it. A few players like to feel nice and cozy with a huge pile of Energy credits at their backs. Admittedly, this is way better than being totally broke, but not using your money is still very bad for your Colony. Energy doesn't do anything for you on its own; Energy that isn't invested into buildings, units, or expanded borders is practically wasted. Don't fall into this trap.

Keep enough Energy on hand at all times to protect against a sudden border attack. As a rough estimate, you could look up a good defensive building (like the defensive perimeter). Check the purchase price for those, and add in two military units. That, at most, should be your cap for Energy carryovers unless you have a specific strategy for hoarding money, as some Industry players do because of their interest bonuses.

You should spend everything over your Colony's rainy day fund as soon as you get it. Purchase Growth and Production buildings in new cities for the maximum benefits during peaceful times. During war, you probably need to devote that Energy to reinforcements or defenders.

It's also easy to forget about tile purchases. City borders expand on their own, so some players don't bother with purchasing border expansions. However, this is a mistake. Grabbing tiles with resources can substantially help a city expand. You can also block off areas to frustrate enemies who are trying to get past you for colonization or exploration. Connect your border as soon as possible so that others must bribe you for open borders or simply give up on territory that you are isolating.

## ALIENS (MUCH WORSE THAN GREEN BARBARIANS)

Aliens are a neutral party on your new world. They're not cheering for any Colony in particular, and they can turn rather aggressive if people attack them. Even when everyone is nice, aliens are a nuisance. They attack Workers, Colonists, Trade Units, and anything that gets too close to their nests. They block off territory and stay near miasma, which is already an environmental hazard on its own.

Choose fairly early on how you're going to deal with the alien threat. You can try to avoid fights with them using ultrasonic fences and careful movement to keep your units out of fights. Or, you can clear out aliens and their nests to make room for even more human expansion. You can also buy a tile with an alien nest, become friendly with them, and then use them for defense.

The former method is safe, and it doesn't cost much in terms of Energy or Production. You let the aliens have their space, you keep them away from your cities with the fences, and that's all there is to it.

The aggressive method costs more but has several major benefits. You must train a larger military in the early game because the aliens aren't pushovers. Fight your way to their nests, destroy them, and you get both Experience (from the fighting) and resources (from the nest itself). You also can grab that land afterward and settle it, if you want.

Fighting the aliens causes them to become more aggressive toward humans. Their icons change colors as they get angrier (green is stable, orange is hostile, and red is infuriated). Though this status returns to normal over time, it isn't a quick

process because aliens trigger further conflict once they're upset. They'll push more assertively into human territory and bring buddies with them.

When you do go after alien nests, make sure to take multiple units. During the early game, your best soldiers can't hope to fight off multiple alien attackers, and nests spit out plenty of units. They have fliers, ranged attackers, and ground troops. Luckily, their largest units either spawn in the open ocean and can't come up on land, or they're just large, simple worms that destroy territory but don't gang up with the units from the alien nests. That's a relief.

If you constantly attack aliens, at least a few rival Colonies are going to take offense. AI players that aren't harming the aliens get a substantial diplomatic penalty when dealing with Colonies that are attacking the aliens. Still, you can't be friends with everyone, and this won't always lead to war if you are nice to the other Colonies in different ways.

Befriending the aliens will help maintain a good defense for your cities, and allow your units to move freely among them. This may take a while to take effect, as you must first buy a tile occupied by an alien nest, and then refrain from attacking the aliens for 60 turns. It might be best to settle a city next to an alien nest and heavily guard it until you can buy or build an ultrasonic fence. After waiting the 60 turns, the aliens' icon turns blue indicating that you are now friends with them. You are then free to settle cities without worry of alien attacks, and use them as a defensive barrier when at war.

Though you can't totally remove aliens from the game without settling the entire map, the presence of aliens still diminishes over time. New alien nests only appear in neutral territory on Xenomass that hasn't been improved yet. As the Colonies' borders expand, there is less and less land available to the aliens for these new nests. Also, humanity gets access to better weapons, and it becomes much easier to clear out alien nests with smaller groups of troops.

Alien units are great for training your military. They have limited Combat Strength, and you often know what to expect from them. They also don't come in gigantic numbers, so a force with two or three units can usually handle almost everything the aliens have to throw at you.

Alien hunting is diplomatically dicey, as stated earlier, but it also has limits. You can't get more than two levels for each unit while hunting aliens. After 30 XP, you simply don't learn anything new from fighting the green hordes.

## STATIONS (NEITHER A CITY, NOR A STATE)

When you're ready to learn about stations, go to Chapter 13. It covers all of the nuances of these locations so that you know how to trade with or exploit these groups.

Stations take up only a single tile and generate different resources for their trade partners. They function in a vaguely similar way to City-States in *Civilization V*, but they don't have the same level of power and influence. You won't have to face station units, or worry about major diplomatic changes unless another Colony was already trading with the station that you attack. However, if you attack them, they will attack back as if it were a city attacking.

# THE TECHNOLOGY WEB

Earlier *Civilization* titles had a Research tree that gave you options about what to study without giving you too much room to do anything strange. There were often several major paths of Research, and it was very costly to try to pursue one of them to the exclusion of the others (especially because some Technologies were dependent on others from peripheral branches).

That system is now a web, which makes more of a difference than it might sound. In the Technology web, you can research anything that touches on a branch that you've already mastered. It's possible to go extremely far in whichever direction you want because nothing in the game requires you to have multiple precursor Technologies. In fact, it's quite the opposite: you often have Technologies that are unlocked by any one of several choices, making it very easy to navigate toward the bonuses and buildings that you want to acquire the most.

Chapter 08 discusses all of the Technology in the game and how the Research system works. This is a very exciting area of the game, so have fun exploring it! The chapter also talks about maximizing Science output so that you complete your Research in a timely manner.

# DIPLOMACY

The fine art of negotiation, threats, and trade makes a return. Though there is no longer a diplomatic means of victory, you still must use this system carefully if you want to come out on top. Poor diplomatic skills can lead to very tricky battles against multiple opponents. Skilled use of Diplomacy allows you to turn enemies against each other and gain substantial benefits while you wait for others to eliminate their own chances for victory.

## Your Reputation

First, some words about the way other Colonies view yours. There are quite a few ways to influence the way people think about you. You might be in an alliance with others, on friendly terms, neutral, hostile, or even at war with your rivals. Think of the positive side as being further and further away from war, and the entire spectrum as one long drop into aggression. The more ways you endear yourself to a rival, the better they'll feel about you (and the more negative activity it will take to have them declare war against you).

## Diplomatic States

- At War You can enter enemy territory, attack their units, and take their cities.
- **Peace:** You cannot attack rival units or enter their territory without an open borders agreement; peace will last until the end of a ceasefire agreement and then return to a normal status.
- **Hostile:** The rival nation is upset with yours, often for multiple reasons; war is close.
- **Neutral:** Your rival has balanced or minimal feelings about your Colony.
- **Friendly:** Similarities in government or interests have brought you close to this nation.
- **Guarded:** Negotiations aren't as likely to go well and the mood is sour, but war can still be averted with considerable effort.

## Diplomatic Gestures And Agreements

- **Cooperation Agreement:** You gain increased trade benefits from international routes to this rival and gain line of sight from their covert agents in third-party territory.
- **Alliance:** You gain open borders and cooperation agreements with this rival and will automatically declare war if they enter into war with any third party.
- **Open Borders:** You can travel in the other nation's territory without provoking war (not possible unless you're at least neutral with the given nation).
- **Condemnation:** One nation lowers their diplomatic status with another as a show of anger; this may lead to war, but it does not have to.

Now that you know the continuum, it's useful to learn how to improve or upset relations between your Colonies and your rivals.

## Ways To Improve Relations

- Have the same Affinity as another nation (must have at least seven levels in your dominant Affinity).
- Provide gifts of resources, units, or cities.
- Promise to do what a rival asks you to do.
- Fulfill your promises.
- Establish a trade route between your city and a rival's.
- Treat the aliens in the same manner as your rival.
- Take a city that was conquered by a third party, and then liberate it for the rival in question.
- Establish a cooperation agreement or alliance with a third party that your rival is also close to.
- Lower your relationship with a third party that your rival also is hostile or at war with.
- Declare war on a third party while your rival is at war with them.

## Ways To Sour Relations

- Have a different affinity than your rival.
- Refuse a demand.
- Make a demand of your own against your rival.
- Break a promise that you made.
- Launch expeditions near a rival's territory.
- Keep your military units or orbitals close to another person's borders.
- Expand your Colony until your borders close in on a rival.
- Get caught using covert operations against one of your rival's cities.
- Attack a station that your rival is trading with.
- Raise your relations with a third party that your rival is hostile toward or at war with.
- Lower your relations with a third party that your rival is friendly with.
- Fight offensive wars or take enemy cities (even if they started the war).
- Have a history of war with the rival.

## Making Friends

For easy resources and a safer way of life, trade heavily from the beginning of the game. Seek cooperation agreements to improve the yields of these routes, and try to agree to any reasonable demands that the other Colonies make. Go ahead and steal an Expedition Site here and there, but be willing to back off and promise to stop doing that once each Colony notices. You can then gain points with them by sticking to your word; send your explorer to another Colony's border, and resume your activities there.

If you heavily court another Colony, make sure to stick with that until there is a good reason to break from that friendship. Team up with them during any useful wars to get even more brownie points with your buddy. When the target of that war is far away, you're often safe from harm and don't have to contribute much. When the enemies are close, you have the potential to get territory quite easily because the enemy must fight a two-front war (or worse).

# Using Enemies

You don't have to be nice to get ahead. Try not to anger the entire world at the same time, though, because that leads to challenging wars, and it's nice to know that you're going to win a fight before you start it.

Pick your enemies based on several factors: are they close enough to conquer, are they already hostile toward you, and would they be easy to defeat? Look at city Combat Strengths and unit numbers, the level of Affinity they are at and gauge each Colony's friendships before you act. If a nation is already being condemned by their rivals, it's safer to go after them. Never pick on the popular Colonies unless you're ready to fight more enemies at the same time.

# Diplomatic Tells

A computer opponent often makes it clear when it wants to start a fight. Units lining up on your border are only one giveaway that war is coming. Watch the way that your neighbors treat you. If a rival suddenly condemns you for almost no slight, and then they mock you or demand something, they're looking for a pretext. It doesn't even matter at that point if you were once friends with that rival. They're spoiling for a fight, and they're going to keep making negative requests and statements until they're hostile toward you. Then, it's on.

Don't wait and be idle about this. Get your army ready, and make sure that your cities are defended. Station troops in advantageous ways to ambush enemies if and when they attack. Consider purchasing tiles to consolidate your territorial holdings and split up your enemy's advance. The sooner you're ready, the easier it's going to be to deflect the invasion and route those jerks before they get any cities or pillaging done.

# VICTORY

The game ends when either time runs out (500 turns in a standard game) or when one of the nations instantly wins by getting one of the five end scenarios. You can do this with military force, Research, and a strong economy, or by pursuing one type of Affinity to its late stages and finishing a project that it unlocks.

Chapter 15 ends with a substantial discussion on victory methods and how to maximize your chances of success with each of them.

On the other hand, you lose a game instantly if another Colony wins or manages to destroy the last of your cities. If you make it to the end of the game and don't have the high score, that also counts as a loss.

# Familiar Concepts

## UNIT STACKING LIMITS

Stacking limits return and are unchanged from the last release of *Civilization*. Tiles can hold one military unit and one non-combat unit at the same time. Other units of the same type can pass through that tile as long as they have enough movement to reach another tile within range before having to stop for the turn.

Cities can also hold air units and trade units, but neither of these can move around the map under your control.

## ZONE OF CONTROL

Units and cities provide a zone of control around themselves. This prevents enemies from moving freely between two tiles that are both adjacent to the unit/city in question. If you start a movement inside a zone of control and finish that movement inside a zone of control, you lose all the remainder of your Movement Points for that turn. This allows units to block enemy progress through their areas, even when it's not their turn to attack.

Melee units that are fortified along roads or near open territory are very good at doing this because they allow their friends to move quickly through the area but stop anyone else who tries to squeeze in there.

Use your fast units to go out and around enemies so that you don't have to worry about their zones of control. There are also special units that get the ability to ignore zones of control. These units make ludicrously good raiders because it's easier for them to get into enemy territory, do some damage, and get out, even if your opponent manages to send adversaries over to them.

Because zones of control are so effective, you don't always need to have a full line of troops to create a wall. Having troops with a single tile that's empty between them can still halt most enemy movement rather effectively. You might even lure enemies to wedge themselves in there, forcing them to fight with flanking penalties and probably some heavy exposure to ranged fire from your units farther back.

## CITIES

Cities have a slightly different way of running than they did in *Civilization V*. You still construct buildings and improve tiles to help the city yield more resources. Early citizens of each city are all devoted toward working the tiles that surround the town itself. After you get more citizens and have special buildings with specialist slots, you start to see a division between tile laborers and specialists who staff the buildings to give the city more specialized output.

The biggest change with cities is that you don't found them as quickly in this game. Colonists are trained from any city that can devote the time to train them. Note that Growth is halted during colonist training, so make sure that your city can afford not to grow for a little while. Once your colonist is done, have a tougher unit escort them to the new city site, and build an outpost with the Colonist special command.

That's where things change compared with the old days. Your new "city" starts off without much power or any citizens at all. You must wait while the outpost expands its borders to have nearby territory. This is hastened with trade convoys or trade vessels, and some starting bonuses and virtue selections help with it, too.

No matter what, it's going to take some time. Protect the outpost with your military, as outposts have low Combat Strength and can't counterattack. Even aliens are decent at taking out undefended outposts!

When ready, the outpost becomes a small city. It normally starts with one citizen and works a single tile beyond its base. That's when you can start trading with the city for resource bonuses, produce buildings, and train units. Make sure to maximize Food and Production during this early stage; these things get cities going very quickly. The more population they have, the more tiles they can work to improve their base resource generation. The more Production they have, the faster that city can get buildings to improve its output. Culture, Health, and Science are all secondary resources that are more important once a city can take care of itself. Until then, have your other cities train units for the new town and do what they can to raise the Health, Culture, and Science of your Colony.

You can't found new cities near existing stations, cities, or outposts. Make sure to give yourself room to grow, but don't have too much room and leave your people spread out where you can't defend them.

# Internal City Matters

Cities have several features that are hidden inside their own screens. Click on a city's banner to get into the City Management screen. From there, you can change the city's Production, purchase troops or buildings outright, turn on the queue by holding shift so that you can line up several items for construction at the same time, or look at what you've already created.

This screen also shows your borders and the plans for the city's cultural progress. If you don't like the tiles you already have, it's possible to spend Energy to purchase additional tiles for your city to work. Though eventually somewhat expensive, this really helps when getting good resources for your most important cities. Why wait?

Cities assign their citizens to work tiles automatically, so you don't even need to lift a finger. However, you can customize this by clicking on workable tiles to put citizens onto them or take them off. This gives you the power to control the output of your city. Add more workers to heavy Production tiles to make a more industrial town. Go for Food for fast Growth, or Energy if your Colony is strapped for resources.

If you manually put a citizen onto a tile, they'll stay locked there because you told them to go there. Click on the tile again to remove a locked citizen from their job.

While in the City Management screen, you should also look at the city's output. Do they have enough Food to grow? Are they growing, but slowly? Is their Production fast enough to produce buildings every few turns, or are they languishing with low Production yields?

See where your cities are weakest, and find ways to help them get over their troubles.

If you want your city to focus on one resource, just click the Culture, Production, Food, Energy, or Science icons to make the citizens automatically work tiles with the most of that resource.

Internal trade routes are almost a universal solution because they develop cities so quickly. However, you can also focus the Production of that city on areas where it's weak. Use buildings to shore up low Growth, Production problems, or Energy concerns.

## External City Matters

When you're outside of a city, look at the banner and see how much information is there. The city name is flanked by all sorts of data. The city's Combat Strength is the central number. The higher it is, the more damage the city does, and the lower it takes damage from all attacks. You can also see the turns until the city gains a new citizen and produces its next unit or building.

Once cities enter battle, there is a chance that they will be defeated and taken by another Colony. Both ranged attacks and melee attacks are often needed to accomplish this because cities have high Health and can get impressive Combat Strength, as well. They'll also frequently have garrison units to boost their Strength even more, or ranged units that give them even more attack opportunities. The ranged units can fire out of the city safely each turn without facing any return fire on the opponent's turn.

You can treat conquered cities in several ways. Razing them takes a number of turns to burn the city to the ground. As the new owner, you won't get any points from keeping the city because it's gone. This is going to upset other Colonies quite a bit. You might get called a butcher here and there. But if you don't have the Health to hold a city, or if you're certain that the enemy can take it back[el] well, then you might want to burn it down a little.

Annexing a city has a massive Health cost because you immediately absorb the city, its population, and their Resistance into your Colony. Resistance is a temporary Health penalty that fades over time. Once it's gone, you're in much better shape, and that city will act like your regular cities in terms of its Health costs.

Puppet cities are easier to manage. You won't have access to the city's Production menu, so it's going to build whatever it wants. However, you get the yields from the city and only a limited amount of Health problems. You're best off making a puppet city when national Health is low, and then annexing the city later, when you're ready to absorb the full brunt of Health problems.

Martial law is one other rub when taking enemy cities. Whether you annex or make a puppet city, you still must initiate martial law when conquering a city. This prevents you from using that location for Production until the martial period ends. The larger the city is, the longer this takes. It's usually wise to avoid annexing the city during this period because you can't make new buildings to assist with the extreme Health issues.

Cities get so much out of their buildings and wonders, but these are covered in the chapters ahead. Chapter 05 fully discusses buildings, their construction, and their values.

## GROWING FOOD

Food is responsible for the growth of each city. Without local sources of Food, your city will stagnate or even fall in population. Larger cities have more power to produce buildings and train units, and they are worth more points for your Colony. As such, you need to master Food output so that your Growth stays strong.

Cities get their Food from working some tiles (such as grassland), from improvements (e.g., farms and biowells), from internal trade routes, and by constructing certain buildings. The sooner you get a city's Growth moving, the better off you're going to be. Higher city populations have a major effect on what the city can do, and chopping down the number of turns to reach a high population is one of your best ways to expand quickly without being vulnerable. But you do have to watch your health, because the higher the population, the lower the Health gets. Build Health buildings to counteract this.

For new cities, get internal trade routes flowing immediately, and try to construct vivariums as soon as you can. This kick-starts your population growth. You must have two Food coming in for every citizen of the city, and Growth only occurs if you have excess Food coming in. The more you get, the sooner you earn another point of population. Go into your City Management screen, and highlight Food to learn more about what you're getting from that town.

Watch out when enemies or aliens get within three tiles of your city. Hostile units on your tiles, even when they're not attacking you, cause your citizens to abandon their work on those spaces. Too many incoming troops can cause even a great city to starve because they won't have anywhere to farm. If you want to thrive, protect both your city proper and also the land around it.

# CULTURE

Culture is a familiar concept in *Civilization*. This resource lets you customize your bonuses through the virtue system, and it also helps your cities grow locally. The national tally of your Culture is what builds up and unlocks virtues. These cool abilities help your Colony in a variety of ways, so Culture is always going to be important. It won't matter where you're getting the Culture. All that matters to the virtue system is how many total points you have and how many Culture points are needed for the next reward. Larger empires have higher virtue costs, but this can also be controlled if you invest in the Knowledge branch of virtues.

Culture still has an effect at the local level. Local Culture controls the border growth for each city. Cities without any cultural generation take a very long time to get access to new tiles. This stagnates their Growth and prevents the Colony from gaining a large defensive border around the tiles that they're using. More Culture is always good, and at least a modest base generation of Culture in each city is sensible.

Old Earth relics are the least expensive Culture building in your arsenal. Make sure that all cities get one of those early in their careers, and then try to get more Culture once you've established the city's Food and Production systems.

You can even create massive Culture-generating cities if you have enough Technology and time. First, get plenty of citizens (the more, the better). Then, work on buildings that have artist slots and that generate Culture, as well. Use trade routes to beef up your Food supply so that you can spare more citizens for those artist slots. Then, have workers improve tiles with domes. These generate Culture and make your city even more of a hot spot for Culture vultures around the land.

# WORKERS

Workers are your best tool for developing the full potential of cities. They move around the countryside, improving the output of tiles without more than an investment in time. Only a few of the higher-end improvements cost Energy per turn, so you usually get something for nothing when it comes to tile improvements.

All of the basic upgrades are available when you start the game. In *Civilization V*, you'd have to research a variety of techs to be able to upgrade many of the tiles around your home. That knowledge is already part of your Culture in this game. People know how to mine, farm, make plantations, and so forth. Instead, they only need new Technology for improving strategic resources or for using more advanced improvements that have even better bonuses.

Once you get a worker, look inside your border at the tiles that are being worked by your city. If you aren't sure which tiles are being used, go into the City Management screen and take a peek. Just note the tiles that have people on them, and take your worker to the tile that is generating the most bonuses. Improve it!

Tile improvement always yields something good, so you don't have to stress about which improvement to use until you really have gotten used to the system. At that point, you start to know what your Colony needs the most. "Anything would help here, but I'm going to need major Growth for this city." Build more farms. "This is my military heart. I'm going to pump out units here." Look for hills to mine. "I want to get rich." Settle near rivers or water tiles, and build generators.

Shoot for having at least one improved tile for every citizen in your cities, at least during the early game. This maximizes your cities' outputs by getting as many resources as possible out of all the tiles they work. The best tiles to improve are the ones with special resources on them. These have good yields already, and they get even better when improved.

As long as you can afford the upkeep, train a worker for every city you have. Developed cities should do the training for newer cities so that the smaller towns can save their Production for buildings. Send the workers over to the new city, and put them to work.

Don't neglect good road networks. These cost Energy to maintain but reward you with Energy when you connect cities to your capital. That's a great way to earn Energy while decreasing transit times between your cities. This is worth quite a bit unto itself during times of war or when you're simply shuffling people around.

Protect your workers by putting military units on the same tile. This doesn't count against unit stacking, so workers and their defenders can move together whenever you like. Enemies capture workers when attacking them, and you won't want to lose your friendly helpers.

If the threat is too great, hurry your workers into a city, and hide them inside there while the danger passes. You can't stack more than one worker in each city, but any spare workers can flee toward more distant locations. You won't want those guys near a battlefield, anyway; they'll get trashed or captured while your defenders are trying to save the city itself.

Military units are able to rip up tile improvements. This gets them Energy and leaves the tile damaged. The tile won't have usable roads anymore, and the yield bonuses from your improvements go away. Send a worker out to that tile when the enemy is dead or chased off, and use the Repair function to quickly restore function to the area. It's much easier to repair a tile than to improve it.

### Tile Improvement List

| Improvement | Location(s) | Bonuses |
|---|---|---|
| Farm | Desert, Grassland, Plains | +1 Food, +1 Food (from Vertical Farming), +1 Energy (from Vertical Farming), +1 Production (from Industrial Ecology), +1 Science (from Artificial Evolution) |
| Generator | Any basic terrain | +2 Energy, +1 Energy (from Augmentation), +1 Energy (from Organics), +1 Production (from Planetary Engineering) |
| Mine | Hills, Gold (resource), Copper (resource), Silica (resource), Titanium (strategic resource), Firaxite (strategic resource) | +1 Production, +1 Energy (from Biometallurgy), +1 Production (from Power Systems) |
| Quarry | Basalt (resource), Floatstone (strategic resource) | +1 Production, +1 Production (from Physics) |
| Plantation | Fiber (resource), Fruit (resource), Fungus (resource), Tubers (resource) | +1 Food or Production, +1 Food (from Photosystems) |
| Well | Petroleum (strategic resource), Geothermal (strategic resource), Xenomass (strategic resource) | Gathers resource, +1 Energy for Geothermal Well (from Power Systems), +1 Science for Xenomass Wells (from Alien Genetics), +1 Culture for Xenomass Wells (from Alien Domestication) |
| Work Barge | Coral (resource), Algae (resource) | +1 Food or Culture |
| Paddock | Chitin (resource), Resilin (resource) | +1 Food or Production, +1 Culture (from Alien Lifeforms) |
| Academy | Any non-resource, traversable tile | +3 Science, +1 Culture (from Protogenetics), -2 Energy (Maintenance) |
| Manufactory | Any non-resource, traversable tile | +3 Production, +1 Science (from Nanorobotics), -2 Health, -2 Energy (Maintenance) |
| Array | Any non-resource, flatland tile | +1 Science, +1 Energy, +1 Orbital Coverage, +1 Science (from Orbital Automation), -2 Energy (Maintenance) |
| Node | Any non-resource, traversable tile | +2 Energy, +1 Science (from Hypercomputing) |
| Dome | Any non-resource, traversable flatland tile | +2 Culture, City Hit Points +10, +1 Energy (from Biospheres), -2 Energy (Maintenance) |
| Biowell | Any non-resource, traversable tile | +1 Health, +2 Food, +1 Culture (from Alien Genetics), -2 Energy (Maintenance) |
| Terrascape | Any traversable tile | +2 Food, +2 Production, +2 Culture, -6 Energy (Maintenance), +1 Food, +1 Production and +1 Culture from Ecoscaping (Prosperity virtue) |

## SPECIALISTS

Specialists are city citizens that do not work on tiles. Instead, they go into slots inside the buildings that you've constructed. There are slots for a wide range of specialists, and each type adds different bonuses toward your city's yields.

Many specialist slots add two points from one resource to your city. This is powerful when you no longer have good tiles to work on because they're all used up, or if your city is located in a region without many good tiles in the first place. Usually, it's a combination of those problems. That's when specialists start to become the most useful; however, they're always good for specializing the output of a city. If you need resources to be of one specific type, it's great to use specialists to push as hard as possible for one type of yield.

## Types of Specialists

| Specialist | Bonus | Buildings |
|---|---|---|
| Artists | +2 Culture | Holosuite, CEL Cradle, Soma Distillery |
| Engineer | +2 Production | Autoplant, Alloy Foundry, Node Bank |
| Trader | +2 Energy | Thorium Reactor, Petrochemical Plant, Field Reactor, Biofuel Plant, Xenofuel Plant |
| Scientist | +3 Science | Xenonursery, Institute, Gene Smelter, Nanopasture |
| Grower | +2 Food | Cloning Plant, Mass Digester, Civil Creche |
| Unemployed | +1 Production | Don't have a citizen work a tile or become a specialist |

To play around with your specialists, go into the City Management screen, and open the City Buildings and Wonders panel at the bottom of the screen. Scroll through the menu of buildings that appears, and click on slots to fill them with specialists or empty ones that are already being used.

To ensure that you don't pull people off of tiles that are being used well, click on occupied unproductive tiles before doing anything with your specialists. This turns those citizens into unemployed workers. Those are going to be the first ones assigned to your specialist slots, so you don't need to worry about which tile they're abandoning.

# GARRISONS

Make sure to leave defensive units inside your cities, especially if there is any chance at all that aliens or hostile units can get there within the next few turns. These garrisoned units raise the Combat Strength of the city, making it harder for enemies to deal damage (and causing them to take more damage if they use melee attacks against the city).

Either use units with high Combat Strength for this role, or grab a powerful ranged unit. Though they won't contribute as much to the city's direct survival, ranged units deal damage from inside the city without having to worry about counterattacks. They'll keep their Health high and be able to attack every round that there are enemies nearby. Additionally, enemy targets won't be able to attack them. This is nice because many ranged units have weaker Combat Strength and can easily be killed in the open field.

Units with bonuses while in cities or inside friendly terrain are usually quite good as garrisons.

# RESOURCES

Basic and strategic resources abound in the new world. Basic resources improve the yields of the tiles that they're on. Strategic resources do this, as well, but they're also added to your Colony's pool once their tiles have been improved. Your resource pool determines how many special units and buildings you can create. Orbitals often require Titanium and Petroleum. Affinity units usually need Xenomass, Floatstone, or Firaxite. Some buildings rely on Geothermal power.

The full value and use of all these resources is outlined in Chapter 07: *Terrain, Features, Resources, and Artifacts*.

## SPIES RETURN

Spies, also known as Covert Agents, are a great way to gain resources and attack enemies without making it clear who is doing what. You earn these subtle tools after you research Computing and construct the Spy Agency.

Once earned, spies go where you tell them to go and do whatever you ask to aid the Colony. Used offensively, defensively, and for pure information gathering, these men and women put their lives on the line for you.

Spies are fully covered in Chapter 14: *Covert Operations: Spies, Damned Spies, and Statistics*.

## THE FOG OF WAR AND TERRAIN EFFECTS

Always remember that the map is not the territory. Even when you scout well and think that you know what is ahead, there can be complications. This game uses a fog of war. If your units don't have visual range on a tile, it's a good idea to avoid moving through that area. Even if you've explored an area previously, you won't get constant updates on city foundings, tile improvements, or troop movement unless you keep your eyes on the target.

This is why it's very useful to have units at the edge of your borders (or beyond). Waiting safely inside your cities can lead to surprise attacks and very challenging defensive work. The more you watch the areas near your cities, the better informed you're going to be about future turns.

Spies whom you use in enemy cities extend your line of sight to that area. Use them extensively!

Units on hills or in open terrain have much better sight than anyone in thick terrain, such as forests. Remember when your vision is limited, and be careful about moving weaker units through such territory. Ambushes by aliens and your rivals can happen at any time.

Not only is rough terrain dangerous for breaking line of sight, it's also slower to move through. Hills, forests, and marshes are all tiles that take more than one Movement Point to get into. Factor that into your plans when moving people around, and don't get caught in a tile that you can't defend. Most tricky terrain is at least more defensive (granting Combat Strength bonuses if your units are attacked there). However, marshes leave your people even more exposed, so they're just awful in general. Fortify your units on the far side of marshes to lure attackers into coming after you on such exposed tiles.

Rivers are another example of tough territory to bypass. If you aren't using proper roads or magrails, your movement ends after crossing a river, even if you have tons of Movement Points to spare. It is also difficult to attack across a river, and you lose some of your Combat Strength for those attacks. Thus, it's a good idea to fortify units on the sides of rivers so that enemies must face a dangerous battle if they attack you there. And if they try to go around, they'll lose their movement when they try to get across the river elsewhere. Go ambush them before they recover!

Units
# Overview

In *Civilization: Beyond Earth*, the term "unit" refers to anything that can move around the map. There are a number of different types of units in that could be in play: military units, workers, colonists, trade convoys, orbital units, etc.

**Movement Speed** is what determines how far you can move during each turn. Some terrain costs more than others, but you can hover over the area with your mouse to see how far each unit can go before you dedicate to any actions.

**Combat Strength** is the overall power of that unit if it's attacked or attacks another unit directly. All military units have this value. Melee units use their Combat Strength when attacking or defending. Ranged units use their Combat Strength when defending against incoming ranged or melee attacks.

**Ranged Combat Strength** is used to determine damage when making indirect ranged attacks. It is not used for defensive purposes.

**Range** is the distance that a ranged unit can attack an enemy; it's measured in hexes. Note that this can be even a single hex. That may sound weird, but it still has a function. Ranged attacks are not countered, so the unit that makes them will not take damage from the enemy that they're attacking. That is why even a one-tile ranged attack is useful! It lets you deal free damage against a target.

**Hit Points** are a measure of a unit's (or city's) Health. They range from 0 to 100. Some types of damage inflict a flat amount of HP damage; standing in miasma is a good example, as it does 10 damage per turn. Other attacks are based on the ratio

between the attacker and the defender and may do as little as 1 damage or as much as 100 damage!

When a unit's Hit Points reach 0, it is destroyed. Health is restored by ending a turn without moving or fighting. This restores 10 Health normally, 20 Health if done inside your territory, or 30 Health if your unit is inside a city. Additional Health may be restored depending on the technological choices that you've made with your civilization.

## BONUSES AND PENALTIES IN COMBAT

Units aren't only measured by their Combat Strength. Multiple factors go into determining how hard your people are to kill. Terrain usually protects the defenders (as with forests and hills), though it can expose people to attack, as well (when your people are in marshes).

There are also bonuses granted when your units flank enemies by circling them in on more than one side. This sometimes leads to several bonuses if your units also have traits that give them advantages for being close to other allied units.

## Flanking Specifics

Units receive a "flanking" attack bonus of 10% for each unit adjacent to the target. Some promotions and virtues give additional bonuses beyond the basic flanking bonus. This is a major way to overcome entrenched enemies or superior forces. If you outnumber your enemy, you can often burn them down, even when their troops are higher in tech. Encircle them, and take them out.

Spend time getting to know each of your military units, and find out what gives them the best bonuses before putting them into a large-scale war. If a unit has bonuses when it's not near allies, then use it as a scout and raiding unit, dashing into enemy territory and dealing as much damage as it can.

For units that are meant to go together, form a line. Have your tougher units stand in front, and protect valuable ranged and siege units by placing them in the rear. Watch your sides for flanking attacks by more mobile troops.

## EXPERIENCE POINTS AND VETERANCY

Units that attack or defend gain Experience, even if they're fighting against aliens or cities. This Experience (XP) accrues until your unit gains a level of Veterancy. You are then given the chance to heal the unit for 50 Hit Points instantly or to grant that specific unit a bonus to their Combat Strength for the rest of their days. In the middle of a war, it's sometimes better to take the immediate Health so that your experienced unit doesn't simply die off. During more peaceful times, or when you have a chance to retreat and rest, it's better to take the bonus Combat Strength!

### Alien Experience Limits

Once a unit has received 30 XP, it no longer gets any additional XP for fighting alien lifeforms.

## Experience Table

- **Making a melee attack**: 5 XP
- **Defending against a melee attack**: 4 XP
- **Making a ranged attack**: 2 XP
- **Defending against a ranged attack**: 2 XP

| Leveling Table | |
|---|---|
| Level | Total XP Required |
| I | 0 |
| II | 10 |
| III | 30 |
| IV | 60 |
| | |

## UNIT STACKING

As with *Civilization V*, you cannot stack military units on top of each other. A given tile can only house one land-based military unit and a single non-military unit. This means that you must prepare attacks carefully so that your military doesn't get bottlenecked in a long column that is easily destroyed with ranged fire, city defenses, and orbital bombardment.

Stack good defensive units on top of workers and colonists to protect them from aliens and raiders.

Use lines of melee units to screen against attack, and have your ranged units follow directly behind this line so that they can fire over their allies to assist in warfare.

You can move your units over each other, so long as there is space for the mobile unit to reach the far side of the middle unit. That makes rough terrain especially nasty when you're moving a large group; many troops won't have enough Movement to go through another person and on to the next tile. Thus, you need to get your formation in place before moving into the nasty area.

# UNIT CATEGORIES

There are several categories of units. Knowing the type of unit you're looking at is a quick way to remember what their general use is both on and off of the battlefield.

## Melee Units

Melee units are land-based units that can attack enemies in adjacent land hexes. These are usually solid troops that are capable of assaulting areas or defending. They lack Range and Flexibility in their roles but are often the core of your forces.

## Ranged Units

Ranged units are units that can attack enemies in adjacent hexes and in hexes one or more spaces away by bombardment. Ranged units are often weaker in their total damage output and are almost worthless when attacked directly in melee. However, they are vital in sieges or large field battles because of their ability to fire over allies. This contributes damage against an enemy without sustaining counterattacks. Ranged units are amazing when they're protected by a city or by a screen of melee units.

## Naval Units

Naval units move only on water hexes. They cannot enter land hexes, except for coastal cities. They patrol the seas, bombard cities and land units, and fight off the horrors that lurk deep in the ocean.

## Air Units

Air units are airborne craft that provide ranged support to your units by bombing cities and other units. They can also work to interdict enemy aircraft so that you maintain aerial control.

## Hover Units

Hover units levitate over the battlefield. They move quickly over any terrain and can even fly over canyons and water tiles. They are some of the most dangerous and flexible raiders in the game. Some of these units are melee attackers and others are ranged, so think of this as a secondary category of unit.

## Non-Combat Units

These are weaker units that have little way of defending themselves. Use your military to escort these units around the map, letting them settle cities, improve tiles, and search for special sites. Never leave these units near aliens or enemy units unless you're trying to lure someone into attacking you.

## Orbital Units

Orbital units are temporary orbiting units. They are deployed on a layer above the battlefield. Each type of orbital provides different bonuses to your Colony. Some enhance cities by adding resources to the tiles underneath them. Others manipulate miasma, and some are battle satellites that attack the ground underneath them.

After an orbital's duration expires, the unit falls from the sky and crashes onto the ground below.

An orbital unit's effect is applied to an area below it, called the effect area or "skirt." For passive effects (say, a Food increase for tiles), this skirt is the area that receives the effect. For activated abilities (for example, a ground bombardment), this is the range where the ability may be used.

## Affinity Units

Each Affinity has several unique military units. These units are tied to that Affinity, and they have bonuses that are often quite specific (giving them a niche that is exploitable in warfare to get an edge over your opponents).

Often, Affinity units have higher stats than generic units of the same tech level, but they cannot be specialized in as broad a manner. This means that your opponents are going to know what they're facing.

## UNIT UPGRADES

Unit Upgrades are based on Affinity level, rather than Technology, in this version of *Civilization*. Every Unit has several tiers of Upgrades they may reach, each with a higher Affinity level requirement. Once the necessary level has been reached, the Upgrade becomes available for the player to choose. Upgrades are applied to every unit of that type instantly, rather than on a unit-to-unit basis, without any cost or returning a unit to the player's borders. This causes sudden jumps in military power from time to time, as colonies hit certain Affinity levels and see their armed forces upgrade overnight.

When a Unit reaches a new Upgrade tier, they receive an increase to their base combat or ranged strength. Sometimes this will be accompanied by an additional bonus, such as increased movement speed or extra range. There is also a choice between one of two perks for the Unit, making all Units of that type more specialized.

All generic Units in the game have an extensive upgrade path, with four tiers. The third and fourth tiers are Affinity-specific, requiring you to have a dominant Affinity. Affinity-specific Unit types have only two tiers. These Units are much stronger and have a more specialized role to start with. Their Upgrades allow for hybridized Affinity levels, as well as the Unit's dominant Affinity.

## UNIT ACTIONS

Most unit actions are self-explanatory, but there are a few tactical uses of these actions that are worth mentioning. Use Alert instead of Fortify if you want to place a unit in an area as a scout. This lets you see if anyone is trying to get through your territory. It's superior for noticing buildups along your borders. Fortify and Alert both provide bonuses to your defenders when they're attacked, so there aren't any downsides to using Alert instead of Fortify. However, using Fortify instead of Alert causes the unit to stay Fortified until the player wakes the unit.

Fortify Until Healed is a great command for restoring units after battle or when they're stopping near home for some rest. Use this so that you don't have to hit the spacebar and skip through all of your wounded units.

Pillage destroys improvements on your current tile. This gets your Colony a small Energy bonus, and it disrupts whatever your rival has in that area. Use this to destroy roads so that enemies can't respond to your invasions as quickly. For the best scenario, have a fast unit race into enemy territory at the beginning of a war, destroy a road that's in rough terrain, and laugh as your opponent bottlenecks all of their responding forces well away from the sight of the actual fighting. Even if you lose your raiding unit in the process, you're going to come out ahead.

Rebase aircraft so that they're always close to the front (whichever front you have, that is). It doesn't take long to reposition your aircraft, so make the most use of them even if you only have a few airborne units. When one war ends, rebase them until they're in position for either defense or your next attack.

## ORBITAL MECHANICS

Clicking on the "Orbital View" button opens the Orbital Layer map. This map mirrors the ground below and shows you which tiles are influenced by orbitals that are already deployed. Look for the blue shadow beneath your orbitals to see the tiles in question.

Orbitals cannot be deployed close together. They cannot stack, nor can they share a skirt. Anything that is already influenced by one orbital cannot also be influenced by a second orbital of another type. This prevents you from having all sorts of crazy bonuses by surrounding cities with all of your orbital types.

It's usually very efficient to construct orbitals in one or two cities within your Colony. There are buildings that make orbitals easier to construct, and placing these in all of your cities is wasteful. Also, cities share their total Orbital Coverage. Anything that you launch from your orbital city can be sent to any tile that is within your Orbital Coverage. This allows your orbital city to supply the entire Colony with any effects that it needs for Growth, defense, or whatever else comes up.

Note that most orbitals require a heavy investment of strategic resources (Petroleum and Titanium being the two biggies). If you like using satellites frequently, do your best to secure sites that have these resources and improve them as soon as you can.

Being up in the sky is fairly safe; most units can't attack your orbitals. However, cities and certain special units are able to launch orbital attacks. Don't deploy your satellites directly over enemy artillery or cities unless you really have to; your opponent won't waste much time in shooting your birdies out of the sky.

By the same token, you shouldn't deploy orbitals too close to your rivals' borders. This is a diplomatic gaffe, and it's likely to sour relations with the Colony in question.

Orbitals fall out of the sky when their duration is over, but that's not entirely the end of their journey. You can use crashed satellites for additional resources. Send an explorer to the site in question, and start an expedition. You sometimes recover some cool stuff from these runs! The only cost is that you might have to repair the tile improvements that the orbital crashed into. A minor nuisance, at most.

Units

# Unit Quicklist

## Unit Quicklist (Costs are based on Standard Speed)

| Unit | Cost | Combat Type | Combat Strength | Ranged Combat Strength | Range | Movement | Abilities | Requirements | Prereq Tech |
|---|---|---|---|---|---|---|---|---|---|
| Aegis | 180 | Ranged unit | 20 | 40 | 2 | 2 | N/A | Titanium, Floatstone | Surrogacy |
| Ambassador | 100 | Ranged unit | 14 | 32 | 2 | 2 | +1 attack each turn, can move after attacking, +20% when attacking cities, all terrain costs 1 Movement, levitates, choice of attacking over terrain obstacles or -1 Setup needed before attacking | N/A | Computing |
| All-Seer | 200 | Orbital unit | N/A | N/A | 1 | N/A | Removes covert agents and Intrigue, 30 turns | N/A | Dark Netwo |
| ANGEL | 370 | Melee and ranged unit | 88 | 88 | 1 | 2 | N/A | Firaxite | Neural Uplo |
| Apostle | 100 | Melee unit | 48 | N/A | N/A | 2 | Choice of 10 HP Healing for adjacent units per turn or 30% bonus when flanking | N/A | Habitation |
| Arbiter | 120 | Ranged unit | 16 | 36 | 2 | 4 | Choice of 15% when next to a friendly unit or 30% when defending | N/A | Computing |
| Armor | 60 | Melee unit | 18 | N/A | N/A | 3 | +30% when attacking fortified units. | N/A | Engineering |
| Artillery | 100 | Ranged unit | 5 | 22 | 2 | 3 | +10% when attacking cities, choice of 30% when attacking cities or 20% when attacking land units | N/A | Computing |
| Bastion | 160 | Support unit | 36 | N/A | N/A | 4 | +1 capacity for aircraft, choice of 20% for onboard aircraft when defending and 20% for onboard aircraft when attacking or +1 capacity as a base for aircraft | N/A | Fabrication |
| Battlesuit | 160 | Melee unit | 40 | N/A | N/A | 2 | N/A | Titanium | Servomach |
| Brawler | 100 | Melee unit | 24 | N/A | N/A | 2 | Choice of 40% bonus Strength when not adjacent to any friendly units or 20 HP attack to adjacent enemy units on death | | Habitation |
| Carrier | 160 | Support unit | 18 | N/A | N/A | 3 | Base for aircraft | N/A | Fabrication |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| CARVR | 220 | Melee unit | 50 | N/A | N/A | 2 | N/A | Firaxite | Autogyros |
| Centaur | 100 | Ranged unit | 8 | 22 | 2 | 2 | Choice of +1 Movement or +40% when defending against ranged attacks | N/A | Computing |
| Centurion | 100 | Melee unit | 48 | N/A | N/A | 2 | Choice of +1 Movement or automatic Healing every turn | N/A | Habitation |
| CNDR | 155 | Melee unit | 38 | N/A | N/A | 2 | N/A | Firaxite | Tactical Rob |
| Cobra | 60 | Melee unit | 50 | N/A | N/A | 4 | All terrain costs 1 Movement, levitates, choice of +30% when attacking and in miasma or 30% when defending and in miasma | N/A | Engineering |
| Colonist | 186 | Non-combat unit | N/A | N/A | N/A | 2 | Creates an outpost | N/A | Pioneering |
| Combat Rover | 140 | Melee unit | 12 | N/A | N/A | 3 | N/A | N/A | Engineering |
| Cruiser | 120 | Ranged Unit | 6 | 24 | 2 | 4 | Choice of 20% against land units or 20% against sea units | N/A | Computing |
| Destroyer | 120 | Ranged Unit | 16 | 36 | 2 | 4 | Choice of 20% when attacking or 5% per unused Movement | N/A | Computing |
| Deep Space Telescope | 200 | Orbital unit | N/A | N/A | N/A | N/A | +25% Science to cities in range, contributes to Contact victory, 60 turns | N/A | Orbital Auto |
| Devastator | 100 | Ranged unit | 14 | 54 | 2 | 2 | +50% when attacking cities, all terrain costs 1 Movement, levitates, choice of attacking over terrain obstacles or +1 Range when unit has not moved | N/A | Computing |
| Disciple | 100 | Melee unit | 24 | N/A | N/A | 2 | Choice of 20% bonus Strength when adjacent to a friendly unit or 8% bonus per adjacent friendly unit | N/A | Habitation |
| Dragoon | 100 | Melee unit | 58 | N/A | N/A | 3 | All terrain costs 1 Movement, levitates, choice of +1 Movement or 50% bonus when attacking cities | N/A | Engineering |
| Dreadnaught | 120 | Ranged Unit | 32 | 62 | 2 | 4 | Choice of +1 Range or +1 Movement | N/A | Computing |
| Drone | 80 | Flying alien unit | 10 | N/A | N/A | 3 | Alien unit | N/A | N/A |
| Earthling Settler | N/A | Special unit | N/A | N/A | N/A | 1 | Required for Promised Land victory | N/A | N/A |
| Educator | 100 | Ranged unit | 8 | 32 | 2 | 2 | +20% when attacking cities, choice of +30% when attacking wounded units or +20% when next to a friendly unit | N/A | Computing |
| Evolved Aegis | 140 | Ranged unit | 36 | 40 | 2 | 2 | 1 more attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +50% when attacking fortified units | N/A | Surrogacy |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Evolved ANGEL | 190 | Melee and ranged unit | 84 | 84 | 2 | 2 | 1 more attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +50% when attacking fortified units | Firaxite | Surrogacy |
| Evolved Battlesuit | 140 | Melee unit | 82 | N/A | N/A | 2 | +30% when defending, choice of +20% when flanking or 40% when not next to any friendly unit | N/A | Servomach |
| Evolved CARVR | 150 | Melee unit | 86 | N/A | N/A | 2 | +15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +50% when attacking fortified units | Firaxite | Autogyros |
| Evolved CNDR | 120 | Melee unit | 74 | N/A | N/A | 2 | +8% per adjacent friendly unit, choice of +30% when in friendly territory or 50% when fortified | Firaxite | Tactical Rob |
| Evolved LEV Destroyer | 225 | Ranged unit | 70 | 108 | 2 | 2 | +30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or +50% when defending against Range | Floatstone | Tactical LEV |
| Evolved LEV Tank | 180 | Ranged unit | 46 | 84 | 2 | 2 | +1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or Movement after attacking | Floatstone | Mobile LEV |
| Evolved Rocktopus | 150 | Orbital unit | N/A | 78 | 2 | 1 | +1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or +1 Movement | Xenomass, Floatstone | Designer Li |
| Evolved SABR | 160 | Ranged unit | 24 | 98 | 3 | 2 | +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup needed before attacking or +60% when attacking wounded units | Firaxite | Synthetic Th |
| Evolved Xeno Cavalry | 160 | Melee unit | 70 | N/A | N/A | 3 | All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +40% when not adjacent to any friendly unit | Xenomass | Alien Dome |
| Evolved Xeno Swarm | 100 | Melee unit | 58 | N/A | N/A | 2 | +20% when in Miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +40% when in miasma and attacking and +40% when in miasma and defending | Xenomass | Alien Adapt |
| Evolved Xeno Titan | 250 | Melee unit | 100 | N/A | N/A | 2 | +50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +40% when not next to any friendly unit | Xenomass | Alien Evolu |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Executor | 100 | Ranged unit | 18 | 30 | 2 | 2 | 1 extra attack every turn, can move after attacking, choice of 8% bonus per adjacent friendly unit or +1 Range when no Movement Points are spent | N/A | Physics |
| Explorer | 40 | Melee unit | 3 | N/A | N/A | 2 | Create an expedition site | N/A | Habitation |
| Guardian | 100 | Ranged unit | 12 | 30 | 2 | 2 | Choice of 50% bonus when stationed inside a city or 10% per unused Movement | N/A | Physics |
| Gunboat | 120 | Naval unit | 6 | 16 | 2 | 3 | N/A | N/A | Computing |
| Gunner | 100 | Ranged unit | 6 | 18 | 2 | 2 | Choice of 5 HP Healing (when not embarked) or 30% defensive Strength vs. ranged units | N/A | Physics |
| Herald | 100 | Flying unit | N/A | 36 | 5 | N/A | +50% when air sweeping, choice of +50% when air sweeping or 20% when attacking wounded units | N/A | Robotics |
| Holomatrix | 130 | Orbital unit | N/A | N/A | N/A | N/A | +2 Culture on tiles in coverage, reduced Intrigue, 60 turns | Petroleum, Floatstone | Civil Suppo |
| Hydra | 160 | Support unit | 44 | N/A | N/A | 3 | +1 Movement, +1 capacity for aircraft, choice of 10 HP Healing for onboard aircraft every turn or +1 capacity as a base for aircraft | N/A | Fabrication |
| Kraken | 100 | Alien naval unit | 70 | N/A | N/A | 2 | N/A | N/A | N/A |
| Lancer | 60 | Melee unit | 40 | N/A | N/A | 3 | Choice of 10% per unused Movement or 20% when attacking | N/A | Engineering |
| LEV Destroyer | 380 | Ranged unit | 50 | 84 | 2 | 2 | Levitates | Floatstone | Tactical LEV |
| LEV Tank | 300 | Ranged unit | 28 | 52 | 2 | 2 | Levitates, Anti-Orbital Strike | Floatstone | Mobile LEV |
| Lasercom Satellite | 130 | Orbital unit | N/A | N/A | N/A | N/A | +15% Science in covered cities, 60 turns | Petroleum, Titanium | Orbital Netw |
| Locust | 100 | Flying unit | N/A | 36 | 5 | N/A | +50% when air sweeping, choice of +30% against air units or +2 Range when unit has full Health | N/A | Robotics |
| Manticore | 100 | Alien ranged unit | 4 | 12 | 2 | 1 | N/A | N/A | N/A |
| Marauder | 100 | Melee unit | 64 | N/A | N/A | 2 | Choice of 30% bonus attacking in miasma or 30% bonus defending in miasma | N/A | Habitation |
| Marine | 100 | Melee unit | 16 | N/A | N/A | 2 | Choice of 20% bonus when attacking or 5 HP Healing per turn when not embarked | N/A | Habitation |
| Minotaur | 100 | Ranged unit | 14 | 48 | 2 | 2 | +1 Range, +50% when attacking cities, all terrain costs 1 Movement, levitates, choice of +50% chance to scatter attacked unit or -1 Setup before attacking | N/A | Computing |
| Miasmic Condenser | 130 | Orbital unit | N/A | N/A | N/A | N/A | Generate miasma on tiles in covered area, 10 turns | Petroleum, Xenomass | Alien Ecolo |
| Miasmic Repulsor | 80 | Orbital unit | N/A | N/A | N/A | N/A | Clear miasma from tiles in covered area, 10 turns | N/A | Ecology |
| Missile Rover | 100 | Ranged unit | 3 | 12 | 2 | 2 | N/A | N/A | Computing |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Needlejet | 100 | Flying unit | N/A | 20 | 4 | N/A | +1 Range, +20 when air sweeping, choice of +30% when intercepting or +15% against land and sea units | N/A | Robotics |
| Orbital Fabricator | 130 | Orbital unit | N/A | N/A | N/A | N/A | +1 Production on tiles in covered area, generates strategic resources on unimproved tiles, 60 turns | Petroleum, Titanium | Geoscaping |
| Orbital Laser | 130 | Orbital unit | N/A | 50 | 2 | N/A | 60 turns | Petroleum | Cybernetics |
| Overseer | 100 | Ranged units | 12 | 30 | 2 | 2 | Choice of 20% bonus when adjacent to a friendly unit or 40% bonus when attacking a city | N/A | Physics |
| Phasal Transporter | 130 | Orbital unit | N/A | N/A | N/A | N/A | One-way unit teleportation from city to covered tile, 30 turns | Petroleum, Titanium | Cybernetics |
| Planet Carver | 200 | Orbital unit | N/A | 120 | 2 | N/A | 30 turns | Petroleum, Titanium | Astrodynam |
| Poseidon | 120 | Naval unit | 32 | 72 | 2 | 4 | +1 Range, choice of Healing even when outside friendly territory or 50% chance to scatter attacked unit to another tile | N/A | Computing |
| Predator | 100 | Flying unit | N/A | 60 | 5 | N/A | +1 Range, +90% when air sweeping, choice of +30% against air units or +25% against land and sea units | N/A | Robotics |
| Prime Aegis | 140 | Ranged unit | 32 | 40 | 2 | 2 | 1 attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +20% when adjacent to a friendly unit | Titanium, Floatstone | Surrogacy |
| Prime ANGEL | 190 | Melee and ranged unit | 84 | 84 | 2 | 2 | Can move after attacking, all terrain costs 1 Movement, choice of +30% when attacking or +40% when flanking | Firaxite | Neural Uplo |
| Prime Battlesuit | 140 | Melee unit | 82 | N/A | N/A | 2 | +30% when defending, choice of +20% when flanking or 20% when next to a friendly unit | Titanium | Servomach |
| Prime CARVR | 150 | Melee unit | 86 | N/A | N/A | 2 | +15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +20% when next to a friendly unit | Firaxite | Autogyros |
| Prime CNDR | 120 | Melee unit | 74 | N/A | N/A | 2 | +8% per adjacent friendly unit, choice of +30% when in friendly territory or 20% when next to a friendly unit | Firaxite | Tactical Rob |
| Prime LEV Destroyer | 225 | Ranged unit | 70 | 108 | 2 | 2 | +30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or -1 Setup before attacking | Floatstone | Tactical LEV |
| Prime LEV Tank | 180 | Ranged unit | 46 | 84 | 2 | 2 | +1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or attacking over terrain obstacles | Floatstone | Mobile LEV |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Prime Rocktopus | 150 | Orbital unit | N/A | 78 | 2 | 1 | +1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or manually deorbit at any time | Xenomass, Floatstone | Designer Li |
| Prime SABR | 160 | Ranged units | 24 | 98 | 3 | 2 | +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup before attacking or +12% per adjacent friendly unit | Firaxite | Synthetic Tl |
| Prime Xeno Cavalry | 130 | Melee unit | 70 | N/A | N/A | 3 | All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +30% when flanking | Xenomass | Alien Dome |
| Prime Xeno Swarm | 100 | Melee unit | 58 | N/A | N/A | 2 | +20% when in miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +20% when adjacent to a friendly unit | Xenomass | Alien Adapt |
| Prime Xeno Titan | 250 | Melee unit | 100 | N/A | N/A | 2 | +50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +20% when next to a friendly unit | Xenomass | Alien Evolu |
| Prophet | 60 | Melee unit | 40 | N/A | N/A | 3 | Choice of 30% when attacking wounded units or 20% when adjacent to a friendly unit | N/A | Engineering |
| Punisher | 100 | Ranged unit | 8 | 32 | 2 | 2 | +30% when attacking cities, choice of +30% when attacking cities or +20% when attacking | N/A | Computing |
| Raider | 100 | Flying unit | N/A | 36 | 5 | N/A | +50% when air sweeping, choice of +30% against air units or 25% against land and sea units | N/A | Robotics |
| Ranger | 100 | Ranged unit | 3 | 8 | 2 | 2 | N/A | N/A | Physics |
| Raptor Bug | 120 | Alien unit | 15 | N/A | N/A | 3 | N/A | N/A | N/A |
| Redeemer | 60 | Melee unit | 68 | N/A | N/A | 3 | +1 Movement, all terrain costs 1 Movement, levitates, choice of +30% when flanking or ignore zones of control when moving | N/A | Engineering |
| Rocktopus | 280 | Orbital unit | N/A | 60 | 2 | 2 | 10 turns | Xenomass, Floatstone | Designer Li |
| SABR | 320 | Ranged unit | 16 | 58 | 3 | 1 | N/A | Firaxite | Synthetic Tl |
| Sea Dragon | 50 | Alien naval unit | 18 | N/A | N/A | 4 | N/A | N/A | N/A |
| Sentinel | 100 | Melee unit | 30 | N/A | N/A | 2 | Choice of 30% defensive Strength or 10% Strength per unused Movement | N/A | N/A |
| Seraph | 100 | Flying unit | N/A | 60 | 5 | N/A | +1 Range, +90% when air sweeping, choice of +1 Interception every turn or 1 rebase costs no Movement | N/A | Robotics |

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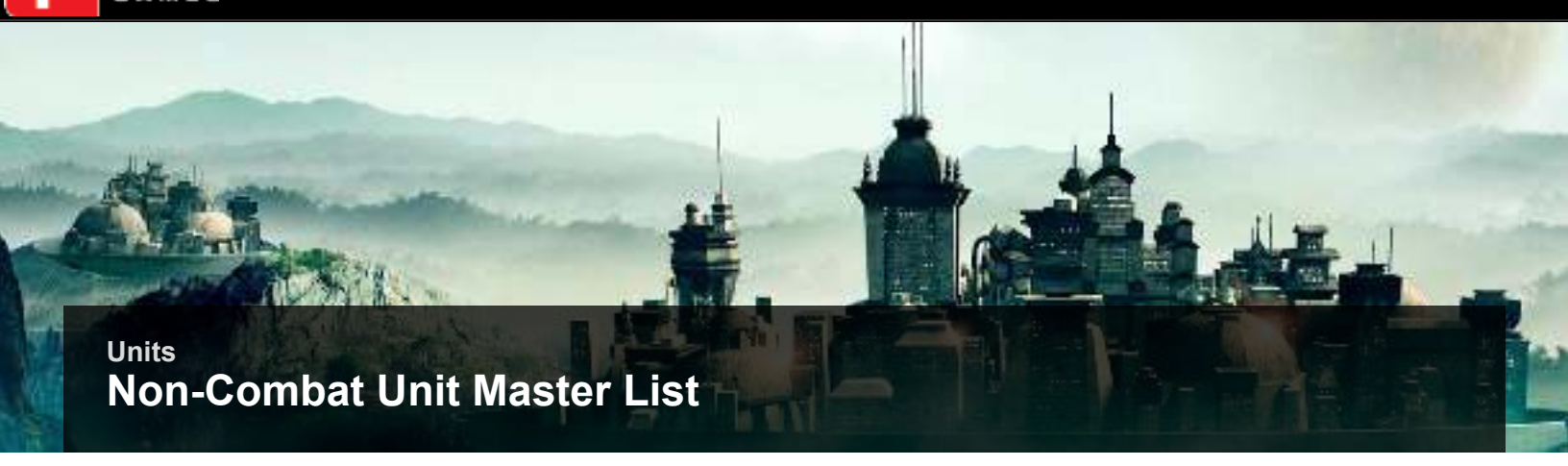
|---|---|---|---|---|---|---|---|---|---|
| Shepherd | 160 | Support unit | 44 | N/A | N/A | 3 | +1 Movement, +1 capacity for aircraft, choice of +2 Range for onboard aircraft or +1 capacity as a base for aircraft | N/A | Fabrication |
| Shredder | 100 | Ranged unit | 18 | 66 | 2 | 2 | Choice of being able to move after attacking, or all terrain costs 1 Movement | N/A | Physics |
| Shrike | 100 | Flying unit | N/A | 60 | 5 | N/A | +1 Range, +90% when air sweeping, choice of +30% chance to scatter attacked units or +25 HP Healing after killing an enemy unit | N/A | Robotics |
| Siege Worm | 70 | Alien melee unit | 60 | N/A | N/A | 1 | Destroys tiles by moving | N/A | N/A |
| Solar Collector | 80 | Orbital unit | N/A | N/A | N/A | N/A | +1 Energy in covered tiles, +20% Energy Production in covered cities, 60 turns | N/A | Photosyste |
| Soldier | 100 | Melee unit | 10 | N/A | N/A | 2 | N/A | N/A | Habitation |
| Striker | 100 | Ranged unit | 12 | 30 | 2 | 2 | Choice of 25 HP Healing after killing an enemy unit or 30% Strength when attacking fortified units | N/A | Physics |
| Tacjet | 100 | Flying unit | N/A | 10 | 4 | N/A | Deploys from a carrier or base | N/A | Robotics |
| Tacnet Hub | 80 | Orbital unit | N/A | N/A | N/A | N/A | 20% offense and defense bonus and 5 HP Healing per turn to friendly units in covered area, 60 turns | N/A | Communica |
| Triton | 120 | Naval unit | 16 | 46 | 2 | 3 | +1 Movement, choice of 30% when not next to a friendly unit or 40% when attacking cities | N/A | Computing |
| Trade Convoy | 60 | Non-combat unit | N/A | N/A | N/A | 2 | Create a land trade route | N/A | Pioneering |
| Trade Vessel | 70 | Non-combat unit | N/A | N/A | N/A | 3 | Create a sea trade route | N/A | Pioneering |
| True Aegis | 140 | Ranged unit | 32 | 40 | 2 | 2 | +1 attack every turn, +10 HP Healing for adjacent units every turn, choice of +40% when attacking wounded units or +60% when inside a city | Titanium, Floatstone | Surrogacy |
| True ANGEL | 190 | Melee and ranged unit | 84 | 84 | 2 | 2 | Can move after attacking, all terrain costs 1 Movement, choice of +30% when attacking or +15% per unused Movement | Firaxite | Neural Uplo |
| True Battlesuit | 140 | Melee unit | 82 | N/A | N/A | 2 | +30% when defending, choice of +20% when flanking or 30% when attacking | Titanium | Servomach |
| True CARVR | 150 | Melee unit | 86 | N/A | N/A | 2 | +15% when next to a friendly unit, choice of +8% per adjacent friendly unit or +30% when attacking | Firaxite | Autogyros |
| True CNDR | 120 | Melee unit | 74 | N/A | N/A | 2 | +8% per adjacent friendly unit, choice of +30% when in friendly territory or 30% when defending | Firaxite | Tactical Rob |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| True LEV Destroyer | 225 | Ranged unit | 70 | 108 | 2 | 2 | +30% when attacking, +10 HP splash damage to enemy units next to target, choice of +1 Range when unit has full Health or +15 HP splash damage to enemy units next to target | Floatstone | Tactical LEV |
| True LEV Tank | 180 | Ranged unit | 46 | 84 | 2 | 2 | +1 Range for anti-orbital strike, +10% per unused Movement, choice of +1 Movement or +10% per unused Movement | Floatstone | Mobile LEV |
| True Rocktopus | 150 | Orbital unit | N/A | 78 | 2 | 2 | +1 Range for anti-orbital strike, generate miasma in orbit, choice of +30% when attacking or +2 Orbital Coverage provided by this unit | Xenomass, Floatstone | Designer Li |
| True SABR | 160 | Ranged unit | 24 | 98 | 3 | 2 | +1 Range, +1 Range for anti-orbital strike, attack over terrain obstacles, choice of -1 Setup before attacking or +30% when attacking | Firaxite | Synthetic T |
| True Xeno Cavalry | 130 | Melee unit | 70 | N/A | N/A | 3 | All terrain costs 1 Movement, choice of +40% when in miasma and attacking and +40% when in miasma and defending or +10% per unused Movement | Xenomass | Alien Dome |
| True Xeno Swarm | 100 | Melee unit | 58 | N/A | N/A | 2 | +20% when in miasma and attacking, +20% when in miasma and defending, choice of 20 HP damage to adjacent enemy units on death or +30% when attacking | Xenomass | Alien Adapt |
| True Xeno Titan | 250 | Melee unit | 100 | N/A | N/A | 2 | +50% when defending against ranged units, +20 HP after killing an enemy unit, choice of +40% when in miasma and attacking and +40 when in miasma and defending or +50% when attacking cities | Xenomass | Alien Evolu |
| Vindicator | 120 | Ranged unit | 32 | 72 | 2 | 4 | +1 Range, choice of +1 capacity as a base for aircraft or can move after attacking | N/A | Computing |
| Viper | 60 | Melee unit | 40 | N/A | N/A | 3 | Choice of 40% bonus when alone or pillaging costs no Movement and gives 25 HP Healing | N/A | Engineering |
| Warden | 100 | Ranged unit | 18 | 66 | 2 | 2 | Choice of attacking over terrain obstacles or +1 Range when no Movement Points spent | N/A | Physics |
| Weather Controller | 130 | Orbital unit | N/A | N/A | N/A | N/A | +1 Food from tiles in covered area, generates basic resources on unimproved tiles in covered area, 60 turns | Petroleum, Titanium | Climate Co |
| Wolf Beetle | 70 | Alien unit | 8 | N/A | N/A | 2 | N/A | N/A | N/A |
| Worker | 60 | Non-combat unit | N/A | N/A | N/A | 2 | Improves tiles | N/A | Habitation |
| Xeno Cavalry | 210 | Melee unit | 48 | N/A | N/A | 3 | N/A | Xenomass | Alien Dome |
| Xeno Swarm | 120 | Melee unit | 34 | N/A | N/A | 2 | N/A | Xenomass | Alien Adapt |

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Xeno Titan | 400 | Melee unit | 96 | N/A | N/A | 2 | N/A | Xenomass | Alien Evolu |



Units

# Non-Combat Unit Master List

## COLONIST

- **Cost**: 80 Production
- **Movement**: 2
- **Abilities**: Outpost construction
- **Prerequisite Tech**: Pioneering

Colonists found outposts that grow over time. Protect them at all costs when on the move. It's best to have an infantry unit of some workers stay in their tile and move to the same location each turn. That way, you won't get ambushed and killed by anything that's hiding nearby.

## WORKER

- **Cost**: 60 Production
- **Movement**: 2
- **Abilities**: Improves tiles
- **Prerequisite Tech**: Habitation

Workers create improvements on tiles. Your cities and nation won't thrive quickly without them. Like colonists, they must be protected by military units. If aliens or potentially hostile units approach your area, place a military unit on the same tile as your threatened worker.

## TRADE CONVOY

- **Cost**: 60 Production
- **Movement**: 2
- **Abilities**: Creates a trade route
- **Prerequisite Tech**: Pioneering

Establish land trade routes with nearby stations, outposts, and cities. These units get you huge amounts of gold, Science, Production, Food, Culture, or even military units. It's hard to be the best without using trade convoys as often as possible.

## TRADE VESSEL

- **Cost**: 70 Production
- **Movement**: 3
- **Abilities**: Creates a trade route over water
- **Prerequisite Tech**: Pioneering

Naval trade routes have similar functions to their land rivals, but you get more resources out of them. That said, the seas are a dangerous place. You end up losing trade vessels to aliens more often because there is no perfect way to protect them.

Units

# Orbital Unit Master List

## ALL-SEER

- **Cost**: 140 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, removes covert agents and Intrigue.
- **Prerequisite Tech**: Dark Networks

The All-Seer protects any cities in range from covert operations. It requires Petroleum and Titanium to construct.

## DEEP SPACE TELESCOPE

- **Cost**: 140 Production

- **Movement**: N/A
- **Abilities**: Orbital unit, +25% Science to any city in Range. Contributes to the Contact victory.
- **Prerequisite Tech**: Orbital Automation

The Deep Space Telescope aids in the discovery of "The Signal," a crucial component of the Contact victory type. It also gives a large bonus to overall Science for cities in coverage Range.

## ▣ HOLOMATRIX

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, +2 Culture on tiles in coverage.
- **Prerequisite Tech**: Civil Support

The Holomatrix increases Culture in nearby tiles and reduces Intrigue caused by covert operations by 50% while it's in the area. It requires Petroleum and Floatstone to construct.

## ▣ LASERCOM SATELLITE

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit
- **Prerequisite Tech**: Orbital Networks

The Lasercom Satellite contributes to the Emancipation and Promised Land victories and increases Science in covered cities by 15%. It requires Petroleum and Titanium to construct.

## ▣ MIASMIC CONDENSER

- **Cost**: 90 Production

- **Movement**: N/A
- **Abilities**: Orbital unit, generates miasma
- **Prerequisite Tech**: Alien Ecology

The Miasmic Condenser generates miasma in the covered area. This is primarily useful for Harmony troops that benefit from being in miasma. It requires Petroleum and Xenomass.

## ▣ MIASMIC REPULSOR

- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, clears miasma
- **Prerequisite Tech**: Ecology

The Miasmic Repulsor clears miasma from tiles in the covered area. Make your trade routes more efficient by clearing the way for them to pass, or reduce the danger for moving through areas with heavy miasma.

## ▣ ORBITAL FABRICATOR

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases Production
- **Prerequisite Tech**: Geoscaping

The Orbital Fabricator increases Production on covered tiles by 1 and generates strategic resources on unimproved tiles by the end of the device's orbit. It requires Petroleum and Titanium to construct.

## ▣ ORBITAL LASER

- **Cost**: 90 Production

- **Movement**: N/A
- **Range**: 2
- **Abilities**: Orbital unit, 50 Ranged Combat
- **Prerequisite Tech**: Cybernetics

The Orbital Laser calls down fire from on high to obliterate your enemies. It requires Petroleum to construct. Use this defensively or offensively if you have enough Orbital Coverage to place the satellite near enemy territory.

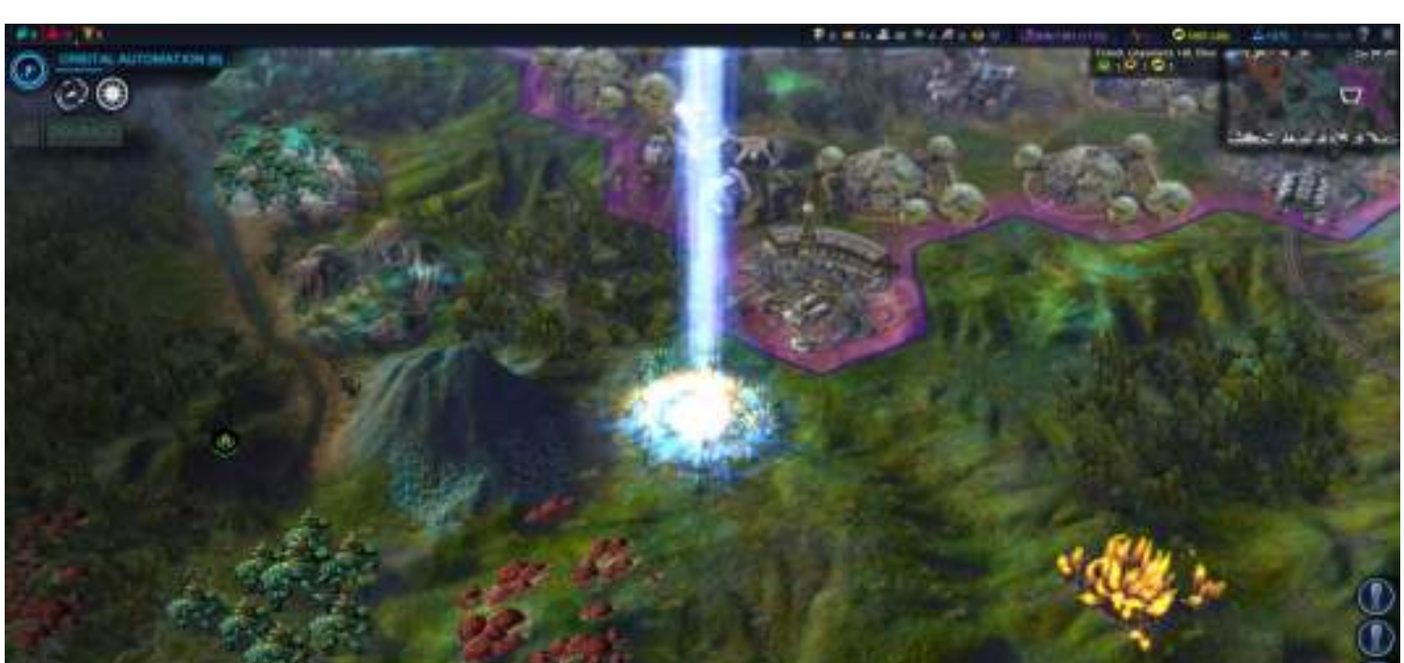
## ▣ PHASAL TRANSPORTER

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, allows unit teleportation
- **Prerequisite Tech**: Cybernetics

The Phasal Transporter allows for unit teleportation from any friendly city to a covered tile. This is a one-way trip. It requires Petroleum and Titanium to construct. Use these as a fast way to prepare major invasions (rather than having your entire army move across the world turn after turn).

## ▣ PLANET CARVER

- **Cost**: 140 Production
- **Movement**: N/A
- **Range**: 2
- **Abilities**: Orbital unit, 120 Ranged Combat
- **Prerequisite Tech**: Astrodynamics



This is an Orbital Laser that spells doom for enemies in the covered area. It requires Petroleum and Titanium to construct.

## SOLAR COLLECTOR

- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases tile Energy
- **Prerequisite Tech**: Photosystems

The Solar Collector increases covered tiles' Energy by 1 and increases Energy Production in covered cites by 20%.

## TACNET HUB

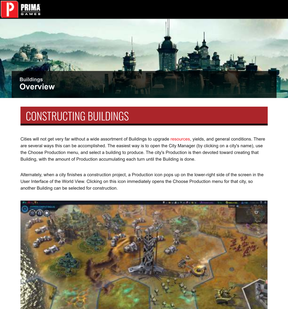
- **Cost**: 50 Production
- **Movement**: N/A
- **Abilities**: Orbital unit
- **Prerequisite Tech**: Communications

The Tacnet Hub provides friendly units in covered area with +20% Combat Strength and improves their Healing by 5 HP per turn.

## ▣ WEATHER CONTROLLER

- **Cost**: 90 Production
- **Movement**: N/A
- **Abilities**: Orbital unit, increases Food Production
- **Prerequisite Tech**: Climate Control

The Weather Controller is an orbital satellite that increases Food Production on covered tiles and generates basic resources on unimproved tiles by the end of its orbit. It requires Petroleum and Titanium to construct.



Buildings
# Overview

## CONSTRUCTING BUILDINGS

Cities will not get very far without a wide assortment of Buildings to upgrade resources, yields, and general conditions. There are several ways this can be accomplished. The easiest way is to open the City Manager (by clicking on a city's name), use the Choose Production menu, and select a building to produce. The city's Production is then devoted toward creating that Building, with the amount of Production accumulating each turn until the Building is done.

Alternately, when a city finishes a construction project, a Production icon pops up on the lower-right side of the screen in the User Interface of the World View. Clicking on this icon immediately opens the Choose Production menu for that city, so another Building can be selected for construction.

With some planning for a city's usage and intended purpose, a queue can be generated to produce multiple Buildings, Units, or combinations of Buildings and Units. Open the City Manager by clicking on the city's name, and then click in the Activate box located on the Production Queue Action Bar to make the check mark appear. This will activate a queue at the bottom of the screen.

Next, choose a Building or Unit to be produced first for the city. The second Building or Unit chosen will be the next item to be produced for the city when the first Building/Unit chosen has been completed. Notice that the Choose Production menu will now read Add To Queue. Each additional Building or Unit chosen will add to the list in the same fashion, being constructed or trained in the order selected. This allows a queue to be created that will allow any combination of available Buildings and Units.

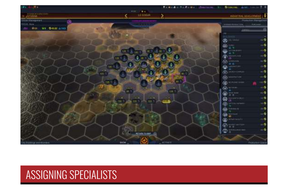
Buildings and Units can also be constructed when purchased. This requires a fair amount of stockpiled Energy, so purchasing Buildings is not always feasible. To Purchase a Building or unit, open the City Manager by clicking on the city's name in the World View. The Production Management menu, located in the upper right corner in the City Manager user interface, contains two tabs: Change Production and Purchase. By clicking on the Purchase tab, the Buildings and Units that can be purchased will appear on the list.

Some of the items may be unavailable, appearing grayed out which means more Energy, Affinity, Resources, and/or other requirements have not been met before the Building or Unit can be purchased. Scan the list of available items, choose a Building to purchase, and click on it. Once a Building or Unit has been selected for Purchase, the proper amounts of Energy and Resources, if applicable, are subtracted from the Global Totals, located at the top of the World View.

To view the Building that was purchased, open the City Manager by clicking on the city's name in the World View, and then click in the Show box located on the City Buildings and Wonders Action Bar in the lower left corner of the City Manager to make the check mark appear. This will show all the Buildings and Wonders for the city. Scroll through the list until the Building that was purchased is seen. All Buildings will appear here whether purchased, produced, or gifted.

Purchasing Buildings grants their associated bonuses instantly. This is often best when starting a new city because it takes many turns of construction; cities with high Production usually finish Buildings so quickly that it is not as efficient to use stored Energy in this manner.

Some buildings can be acquired automatically. Some Wonders can "gift" a Building to the city in which the Wonder is built. This is covered in the Next Chapter, but the important piece to remember is that some Buildings can be acquired for free. Do not Produce or Purchase a Building that can cost valuable Turns, Energy, and Production if that Building is not absolutely necessary!



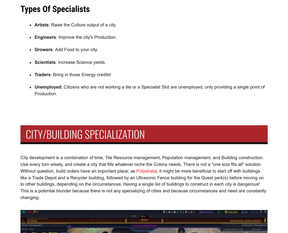
## ASSIGNING SPECIALISTS

Open the City Manager by clicking on a city's name in the World View, and activate the City Buildings and Wonders option at the bottom of the screen by clicking in the Show box, making the check mark appear. This opens a panel above it that shows the Buildings and Wonders that have been built inside the city. Look over all of the Buildings, Wonders, and associated perks that city has to acquired. Notice that some of the Buildings have open circles next to them.

These open circles are actually Specialist Slots. There are several types of Specialists that are all valuable to the progress of the city. Click on the slots to fill them with Citizens so that bonuses can be gained. To view the bonuses, hover the mouse pointer over the Specialist Slots, and tool tips will appear for each slot.

It is also important to know how many Citizens there are in a city so that they can be assigned out appropriately. To see the Population information of the city, look at the upper left corner above Citizen Management in the City Manager or to the left of the City's name in the World view.

Citizens cannot be Specialists and Laborers at the same time. So, having a ton of Specialists means that there will not be as many people to work the tiles around the city. This is usually a rough trade-off in the early days of a city, when the city needs the resources from the tiles to grow. Later on when the Population is larger, usually there are Citizens that can be spared for Specialist Slots because not every single tile will have to be worked. Once Citizens are working the city's best tiles, go ahead and start assigning Citizens to Specialists Slots to focus the city on whichever resources are needed the most.

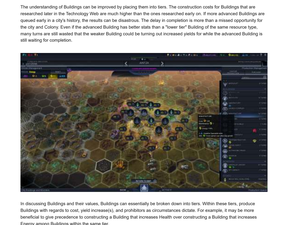


### Types Of Specialists

- **Artists**: Raise the Culture output of a city.
- **Engineers**: Improve the city's Production.
- **Growers**: Add Food to your city.
- **Scientists**: Increase Science yields.
- **Traders**: Bring in those Energy credits!
- **Unemployed**: Citizens who are not working a tile or a Specialist Slot are unemployed, only providing a single point of Production.

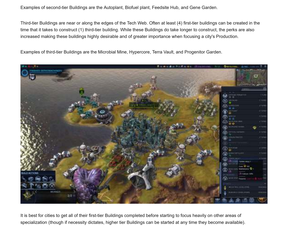
## CITY/BUILDING SPECIALIZATION

City development is a combination of time, The Resource management, Population management, and Building construction. Use every turn wisely, and create a city that fits whatever niche the Colony needs. There is not a "one size fits all" solution. Without question, build orders have an important place; as Prytonalia, it might be more beneficial to start off with buildings like a Trade Depot and a Recycler building, followed by an Ultraxonic Fence building for the Quest perk(s) before moving on to other buildings, depending on the circumstances. Having a single list of buildings to construct in each city is dangerous! This is a potential blunder because there is not any specializing of cities and because circumstances and need are constantly changing.



In earlier *Civilization* games, generic build orders could be a real problem. People who used them did not realize the tremendous advantages that can be gained by stacking buildings with similar bonuses on top of each other. It was possible to create a military focused city that popped out units with multiple upgrades. Then, another city could be focused on massive scientific bonuses, utilizing Wonders with Science bulb to compound high Science yields. Generic cities with the same buildings could not reach equivalent power as quickly.

In *Civilization: Beyond Earth*, there are not as many buildings that help to specialize, but this style of play is still relevant. Create a city with stronger defenses along the Colony's border. Make sure that it has bonuses that increase City Hit Points and City Strength. Use safer interior cities to focus more on producing units and orbitals as well as to increase yields and general resources.



Avoid wasting time creating massive defenses in safe areas until there is nothing better to do (which doesn't happen often). Instead, take the slight risk in leaving those cities weaker, investing in Science, Production, and other yields that are going to help the Colony grow.

## TIERS OF BUILDINGS

This discussion is more of a conceptual one because the game does not require its Buildings to be built in tiers. There is no requirement to construct a Vivarium building to get a Cloning Plant building, or a Recycler building to get a Borehole building. However, it is still necessary to learn about tiers because they are a quick way to represent the necessity of a particular Building for each city owned.

The understanding of Buildings can be improved by placing them into tiers. The construction costs for Buildings that are researched later in the Technology Web are much higher than the ones researched early on. If more advanced Buildings are queued early in a city's history, the results can be disastrous. The delay in completion is more than a missed opportunity for the city and Colony. Even if the advanced Building has better stats than a "lower tier" Building of the same resource type, many turns are still wasted that the weaker Building could be turning out increased yields for while the advanced Building is still waiting for completion.



In discussing Buildings and their values, Buildings can essentially be broken down into tiers. Within these tiers, produce Buildings with regards to cost, yield increase(s), and prohibitors as circumstances dictate. For example, it may be more beneficial to give preeminence to constructing a Building that increases Health over constructing a Building that increases Energy among Buildings within the same tier.

First-tier Buildings are the inexpensive ones that are usually gained in the first ring of Technology. These take little time to complete, still have very solid bonuses, and do not require much from a city in terms of access to Strategic Resources. First-tier Buildings are so efficient that every type of these Buildings can be built in every city that is founded.

Examples of first-tier Buildings are the Old Earth Relic, the Thorium Reactor, the Clinic, the Laboratory, and the Vivarium.

Second-tier Buildings are going to be researched on the next circle farther out in the Technology Web. The cost is over double what the early buildings cost, and the bonuses are not always that much more powerful. Second-tier Buildings may or may not always be necessary in each city. This is where focused intent in the planning of the city becomes increasingly important.

Examples of second-tier Buildings are the Autopilant, Biofuel plant, Feedsite Hub, and Gene Garden.

Third-tier Buildings are near or along the edges of the Tech Web. Often at least (4) first-tier buildings can be created in the time that it takes to construct (1) third-tier building. While these Buildings do take longer to construct, the perks are also increased making these buildings highly desirable and of greater importance when focusing a city's Production.

Examples of third-tier Buildings are the Microbial Mine, Hypercore, Terra Vault, and Progenitor Garden.



It is best for cities to get all of their first-tier Buildings completed before starting to focus heavily on other areas of specialization (though if necessity dictates, higher tier Buildings can be started at any time they become available).

Get the first tier of buildings done, and go in the order of needs that the city requires the most. For example, start with a Vivarium building if the city is in a low-Food, high-Production area. Similarly, start with a Trade Depot building if the city or the Colony is heavily in need of Culture. Production, Science, and/or Energy. Internal trade routes can also be used to heavily boost more than one city at a time.

# Building Quicklist

## Building Quicklist

| Building | Production Cost* | Maintenance | Yield | Prerequisite(s) | Additional Perks |
|---|---|---|---|---|---|
| Alien Preserve | 125 | 1 Energy | 2 Culture | Alien Lifeforms | N/A |
| Alloy Foundry | 310 | 1 Energy | 2 Production, 2 Production (from Titanium) | Fabrication | 2 specialist slots (engineer) |
| Augmentary | 500 | N/A | 1 Culture, 1 Food, 1 Energy, 1 Science, 1 Production | Augmentation, Level 7 in Supremacy | N/A |
| Autoplant | 210 | 1 Energy | 2 Production, 1 Energy from International City or Station Trade Routes) | Robotics | 2 specialist slots (engineer) |
| Biofactory | 290 | 1 Energy | 3 Production, 1 Production (from Chitin) | Organics, Level 4 in Harmony | N/A |
| Biofuel Plant | 220 | N/A | 3 Energy, 2 Energy (from Algae) | Biology | 2 specialist slots (trader) |
| Bioglass Furnace | 470 | 1 Energy | 2 Production, 15% Production bonus | Bioengineering, Firaxite, Level 8 in supremacy | N/A |
| Bionics Lab | 265 | 1 Energy | 20% Health bonus, 1 Production (from Resilin) | Bionics | N/A |
| Borehole | 500 | 1 Energy | 5 Production | Planetary Engineering, Level 8 in Purity | N/A |
| CEL Cradle | 310 | 1 Energy | N/A | Artificial Intelligence, Level 4 in Supremacy | 4 specialist slots (artist) |
| Civil Cr che | 445 | 1 Energy | 2 Food | Social Dynamics | 3 specialist slots (grower) |
| Clinic | 60 | 1 Energy | 1 Health, 1 Science | Habitation | N/A |
| Cloning Plant | 210 | 1 Energy | 2 Food, 1 Production (from Xenomass) | Genetic Design | 1 specialist slot (grower) |
| Command Center | 310 | 1 Energy | 20 City Strength, 20 City Hit Points | Communications | N/A |
| Cytonursery | 90 | 1 Energy | 1 Health, 1 Science, 1 Food (from Marshes) | Genetics | N/A |
| Defense Perimeter | 150 | 1 Energy | 10 City Strength, 40 City Hit Points | Defense Grid | N/A |
| Feedsite Hub | 225 | 1 Energy | 3 Culture, 1 Science from International City or Station Trade Routes | Communications, Level 2 in Supremacy | N/A |
| Field Reactor | 500 | N/A | 2 Energy, 10% Energy bonus | Field Theory | 2 specialist slots (trader) |
| Gaian Well | 265 | N/A | 3 Energy | Terraforming, Level 4 in Purity | N/A |
| Gene Garden | 200 | 1 Energy | 2 Health, 1 Science | Genetic Design, Level 2 in Purity | N/A |
| Gene Smelter | 350 | 1 Energy | 3 Health | Transgenics | 2 specialist slots (scientist) |
| Grow Lab | 265 | 1 Energy | 3 Food, 1 Food (from Fungus) | Biology, Level 4 in Harmony | N/A |
| Holosuite | 245 | 1 Energy | 2 Culture, 1 Culture (from Firaxite) | Cognition | 2 specialist slots (artist) |
| Hypercore | 470 | 1 Energy | 2 Science, 15% Science bonus | Hypercomputing, Firaxite, Level 10 in Supremacy | N/A |
| Institute | 310 | 1 Energy | N/A | Bionics | 3 specialist slots (scientist) |
| Laboratory | 80 | 1 Energy | 2 Science | Chemistry | N/A |
| Launch Complex | 130 | 1 Energy | 3 Orbital Coverage around city | Physics | N/A |
| LEV Plant | 390 | 1 Energy | 4 Production | Mechatronics, Floatstone, Level 5 in Purity | N/A |
| Mantle | 470 | 1 Energy | 3 Science, 10% Science bonus | Field Theory, Floatstone, Level 8 in Purity | N/A |
| Mass Digester | 255 | 1 Energy | 1 Energy (from Tundra) | Organics | 4 specialist slots (grower) |
| Microbial Mine | 430 | 1 Energy, 2 Xenomass | 3 Production, 10% Production bonus | Synergetics, Xenomass, Level 7 in Harmony | N/A |
| Mind Stem | 600 | 1 Energy | Adds 1 point per turn toward Transcendence Victory | Alien Ethics | N/A |
| Molecular Forge | 390 | 1 Energy | 5 Food | Bioengineering, Level 8 in Harmony | N/A |
| Nanopasture | 415 | 1 Energy | 30% Food carried over after Growth | Nanotechnology | 2 specialist slots (scientist) |
| Neoplanetarium | 500 | 1 Energy | 40% Production for Orbital units, 3 Orbital Coverage around city | Astrodynamics | N/A |
| Network | 185 | 1 Energy | 3 Science, 1 Science (from Copper) | Computing | N/A |
| Neurolab | 255 | 1 Energy | 10% Science bonus, 1 Science (from Firaxite) | Cognition, Level 4 in Supremacy | N/A |
| Node Bank | 375 | 1 Energy | 24 City Strength, 10 City Hit Points | Cybernetics | 2 specialist slots (engineer) |
| Observatory | 100 | 1 Energy | 2 Science, 1 Science (from Firaxite) | Physics, Requires a workable, improved source of Firaxite | N/A |
| Old Earth Relic | 40 | 1 Energy | 2 Culture | Habitation | N/A |
| Optical Surgery | 370 | 1 Energy | 4 Health, 1 Health (from Silica) | Mechatronics, Firaxite, Level 5 in Supremacy | N/A |
| Organ Printer | 390 | 1 Energy | 15% Science bonus | Synergetics, Level 8 in Supremacy | N/A |
| Petrochemical Plant | 160 | 1 Energy | 1 Production (from Petroleum), 1 Energy (from Petroleum) | Biochemistry | 1 specialist slot (trader) |
| Pharmalab | 95 | 1 Energy | 2 Health | Genetics | N/A |
| Progenitor Garden | 430 | 1 Energy | 20% Health bonus | Artificial Evolution, Xenomass, Level 10 in Harmony | N/A |
| Recycler | 75 | 1 Energy | 2 Production, 1 Production from Internal City or Station Trade Routes | Chemistry | N/A |
| Repair Facility | 90 | 1 Energy | 10% Production bonus for Land units | Engineering | N/A |
| Rocket Battery | 125 | 1 Energy | 18 City Strength, 15 City Hit Points | Ballistics | N/A |
| Skycrane | 470 | 1 Energy | 15% Production bonus | Astrodynamics, Floatstone, Level 10 in Purity | N/A |
| Soma Distillery | 400 | 1 Energy | 4 Health | Social Dynamics | 2 specialist slots (artists) |
| Surveillance Web | 235 | 1 Energy | 5 City Hit Points, Maximum Covert Ops Intrigue for city reduced by 2 | Artificial Intelligence | N/A |
| Terra Vault | 390 | 1 Energy | 15% Culture bonus | Social Dynamics, Level 7 in Purity | N/A |
| Thorium Reactor | 105 | N/A | 3 Energy | Engineering | 2 specialist slots (trader) |
| Trade Depot | 60 | 1 Energy | +1 Production, Allows (2) Trade Routes to be established from the city it is built in | Pioneering | N/A |
| Ultrasonic Fence | 120 | 1 Energy | Prevents liens from approaching within 2 tiles of city | Ecology | N/A |
| Vivarium | 80 | 1 Energy | 2 Food, 1 Food (from desert), 1 Food from Flood Plains | Ecology | N/A |
| Water Refinery | 150 | 1 Energy | 1 Food & 1 Production from Water tiles *Can only be constructed in cities built on Coastline. | Biochemistry | N/A |
| Xeno Sanctuary | 330 | 1 Energy | 4 Culture, Adds 1 point per turn toward Transcendence Victory | Alien Ethics, Xenomass, Level 5 in Harmony | N/A |
| Xenofuel Plant | 190 | N/A | 3 Energy, 1 Energy (from Xenomass) | Alien Sciences, Level 2 in Harmony | 2 specialist slots (trader) |
| Xenonursery | 180 | 1 Energy | 10% Science bonus, 1 Science (from Xenomass) | Alien Sciences, Level 2 in Harmony | 1 specialist slot (scientist) |

*Numbers listed reflect Standard game Speed.

# Overview

Wonders and projects are massive undertakings that dramatically influence your civilization. These exciting tasks provide bonuses that help you overpower your enemies and complete the game. This chapter lets you know the risks and rewards for these major game elements.

## TYPES OF WONDERS AND PROJECTS

Great wonders offer the biggest bonuses, the highest construction costs, and the most risk of all these undertakings. There can only be one great wonder of each specific type in the entire world. That means that the first nation to construct a great wonder is the only one that gets to benefit from it, unless another nation takes over their city with the wonder.

Great wonders provide a major boost to your in-game points, and they have a variety of effects on your civilization's statistics. Figure out which great wonders you're mostly likely to succeed in building, and go after those in your cities with the highest Production.

If you're slow to research Technology that grants access to a great wonder, you're unlikely to finish constructing that wonder before your opponents. Figure out the wonders you like the most during the early games of *Civilization: Beyond Earth*, and note the Technologies that you need for these wonders. Hurry to get those techs sooner in future playthroughs, and rush to get your best wonders done before other people even have a chance to compete with you.

When someone else completes a great wonder before your city can finish it, the Production you've invested is converted into Energy. That's nice and all, but it's not a great conversion. You don't want to lose the construction race, so think carefully before you begin each great wonder.

National wonders are a different animal altogether, as you aren't competing with other people to get these done. Every nation can have a single version of each national wonder; you just need to decide which city to put your national wonders in. For now, there aren't many national wonders. You start with Headquarters in your capital city. The Spy Agency and Culper Lodge develop as you make progress through the tech web, and they give you access to spies and covert operations. The Spy Agency doesn't even take long to construct, so put it anywhere that can get the building up and running quickly.

Projects are like national wonders that focus on victory conditions. Work on these to advance your nation toward one type of victory or another. All civilizations can work on their own versions of these, so you can't cut anyone else off from a victory by beating them to project completion. Instead, you must get the entire victory condition done before anyone else does.

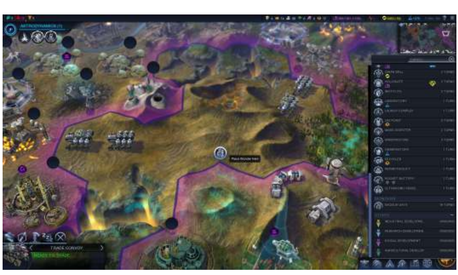
## WORKING ON A PROJECT

In addition to high Production costs, projects occupy a plot within the home city's radius. Selecting this plot is a secondary step of choosing the project. Make sure to use a tile that isn't well developed or important to your city (anything on that tile gets destroyed when you start the project there). You can't get any resources from a project tile; even the base value of the terrain won't count for generating resources.

You can cancel a project and revert your tile back to its base version, but at that point, you've wasted quite a bit of work on the tile and destroyed its improvements. You should only do this as a last resort if you realize that a city is unfit to get the project done compared with another one of your cities. This could be due to defensive concerns, lack of Production, or some other unforeseen variable.

It's possible for enemies to occupy your project tile and pillage it. This removes your work on the project, possibly wasting many turns of progress. When you complete a project, the area becomes harder to destroy. Opponents must attack it directly at that point instead of pillaging the tile. Defend your project as well as possible so that you can continue toward victory!

Consider building your projects on hills or other rough terrain so that your defenders gain bonuses while protecting the project from enemy forces. Leaving projects out on open ground is a good way to encourage sieging adversaries to go after your projects aggressively.



Wonders, National Wonders, & Projects

# Quicklist

## Wonders Quicklist

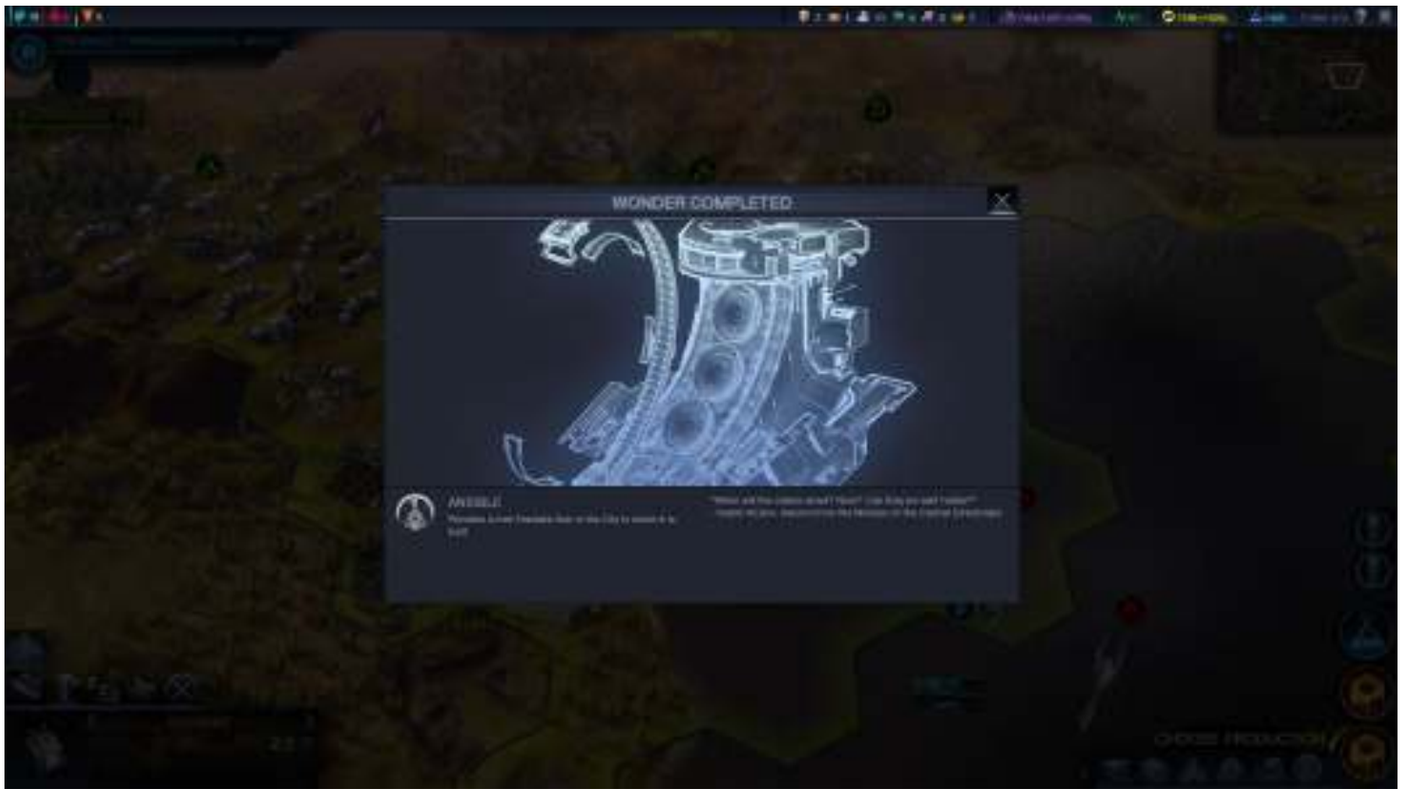
| Building | Production Cost | Required Technology | Yield | Comments |
|---|---|---|---|---|
| Ansible | 1500 | Exotic Matter | Energy +4, Science +4 | Constructing city gains a feedsite hub |
| Archimedes Lever | 1250 | Seismic Induction | Culture +1, City Strength +50, Production +4 | N/A |
| Armasail | 1250 | Synergetics | City Hit Points +100, Production +4 | N/A |
| Beacon | 1650 | N/A | Contact victory | Project, part of Contact victory |
| Bytegeist | 1250 | Swarm Intelligence | +4 Culture, +2 Science | -15% Culture cost for virtues |
| Crawler | 1250 | Mechatronics | +1 Culture | +25% Production for wonder construction |
| Culper Lodge | Free | N/A | All spies become special agents | National wonder |
| Cynosure | 1550 | Synthetic Thought | +7 Science | Military units can gain an additional Veterancy level |
| Daedalus Ladder | 1550 | Augmentation | +3 Health, +2 Food | N/A |
| Decode Signal | 850 | Transcendental Equation | Allows Beacon project | Project, part of Contact victory |
| Deep Memory | 1450 | Human Conservation | +7 Culture | Two free virtues |
| Drone Sphere | 650 | Swarm Robotics | +2 Science | Constructing city gains a surveillance web, +10 Healing for military units in friendly territory |
| Ectogenesis Pod | 300 | Genetic Design | +3 Food, +3 Production | Farms produce +1 Food |
| Emancipation Gate | 1750 | Hypercomputing | Emancipation victory | Project, part of Emancipation victory |
| Exodus Gate | 1750 | Nanotechnology | Promised Land victory | Project, part of Promised Land victory |
| Gene Vault | 205 | Genetic Mapping | +1 Culture, +4 Food | +10% Growth for your cities |
| Headquarters | Free | None | +1 Culture, City Strength +6, +4 Energy, +2 Science, +3 Production | National wonder, designates your capital |
| Holon Chamber | 1050 | Hyperconductors | +5 Science | N/A |
| Human Hive | 1150 | Euthenics | +3 Production | Maximum covert ops Intrigue reduced by 4 in constructing city |
| Markov Eclipse | 1050 | Artificial Intelligence | +1 Culture, +4 Science | Military units gain Experience 50% faster |
| Mass Driver | 950 | Ballistic LEV | +25% City Strength, +5 City Orbital Strike Range | N/A |
| Master Control | 225 | Autonomous Systems | +1 Culture | Free network in constructing city, +1 Movement for workers |
| Memetwork | 700 | Orbital Networks | +2 Health, +4 Culture, +25% Culture | N/A |
| Mind Flower | 1900 | None | Transcendence victory | Project, part of Transcendence victory |
| Nanothermite | 1050 | Nanotechnology | City Strength +30, +4 Energy | N/A |
| New Terran Myth | 750 | Human Idealism | +4 Culture | N/A |
| Panopticon | 250 | Defense Grid | +1 Culture | +1 Sight for your military units |
| Precog Project | 450 | Collaborative Thought | +2 Health, +2 Culture | +15% Combat Strength vs. military units in friendly territory |
| Promethean | 950 | Transgenics | +4 Health, +2 Culture | 1 free virtue |
| Quantum Computer | 1050 | Field Theory | +5 Science | 1 free Technology |
| Resurrection Device | 1350 | Artificial Evolution | +8 Health | N/A |
| Spy Agency | 200 | Computing | Adds 3 spies | National wonder |
| Stellar Codex | 225 | Ballistics | +3 Science | +10% Production for orbital units, constructing city gains +4 Orbital Coverage |
| Tectonic Anvil | 1550 | Metamaterials | +9 Production | N/A |
| Transcendental Equation | 450 | Transcendental Math | Contact victory | Project, part of Contact victory |
| Xenodrome | 750 | Alien Ethics | +4 Culture | Constructing city gains a free Xeno Sanctuary |
| Xenomalleum | 1050 | Bioengineering | +7 Energy | +2 Energy from generators |
| Xenonova | 1150 | Alien Materials | +2 Health, +7 Food | N/A |

Wonders, National Wonders, & Projects

# Master List for Wonders

## ⚠ ANSIBLE

- **Cost**: 1500 Production
- **Yield**: Energy +4, Science +4, free feedsite hub
- **Prerequisite**: Exotic Matter (Tech)

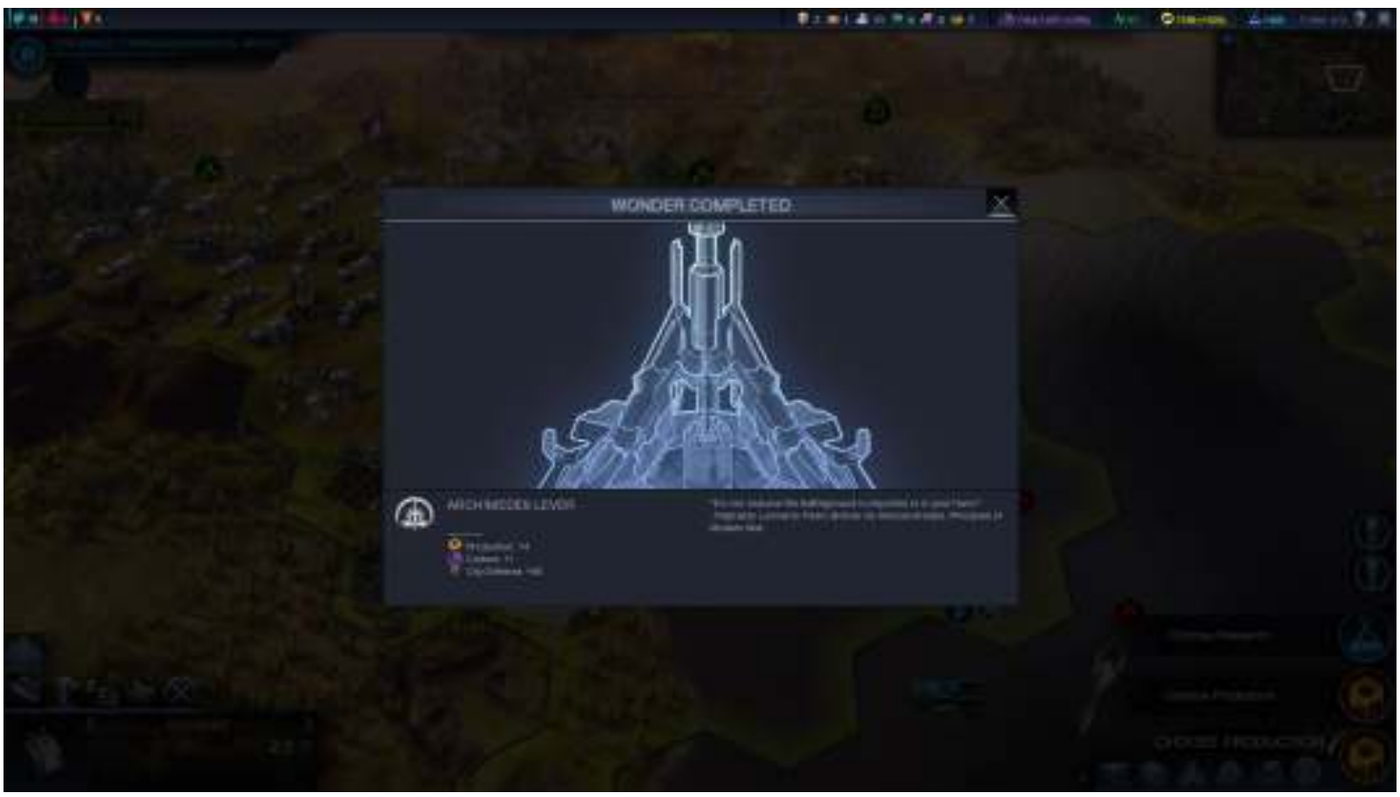



The Ansible is a costly wonder that doesn't have especially high bonuses in a global sense. It's not something that you should construct without thinking about its location. You need to put this in a city that is already going to be very high on Energy and Science. That way, later-game buildings can magnify the decent base bonuses to these resources.

## ⚠ ARCHIMEDES LEVER

- **Cost**: 1250 Production

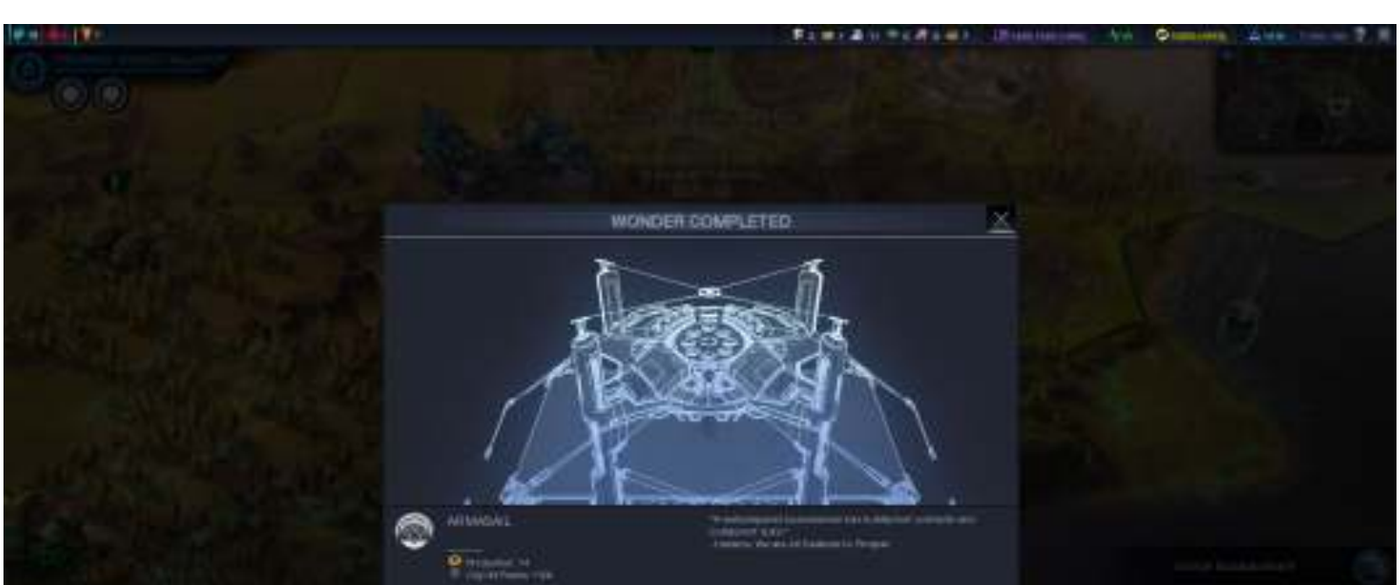
- **Yield**: Culture +1, City Combat Strength +50, Production +4
- **Prerequisite**: Seismic Induction (Tech), Geothermal (Resource)




If you'd like to make a nasty defensive city, this is a good wonder to build. The bonus it provides to City Strength is extremely high, especially if combined with normal defensive buildings. Look into this if you have a city that is in a critical chokepoint on the map. Make sure that your enemies go through hell if they ever try to siege it.

## ⚠ ARMASAIL

- **Cost**: 1250 Production
- **Yield**: City Hit Points +100, Production +4
- **Prerequisite**: Synergetics (Tech)



The Armasail is the sister wonder to the Archimedes Lever. This wonder adds immense survivability to a city. If you ever get the chance to put both of these into the same city, you end up with a place that is almost invulnerable. Provide a worthwhile ranged unit to fire out from there, and use terrain to keep people from easily going around it. So nice.

## ⚠ BYTEGEIST

- **Cost**: 1250 Production
- **Yield**: +4 Culture, +2 Science, -15% Culture cost for virtues
- **Prerequisite**: Swarm Intelligence (Tech)

The Bytegeist is a powerful global wonder because it lowers your virtue costs. The sooner you construct it, the more you get out of it for securing late-game virtues. Swarm Intelligence is a leaf in the second circle of Research, so you can't rush it too easily. However, someone who makes this a priority and also takes Knowledge virtues can do wonderful things with their civilization. They get fast virtues and can expend well without taking big hits to their Science or Culture efficiency (because of the Knowledge bonuses).

## ⚠ CRAWLER

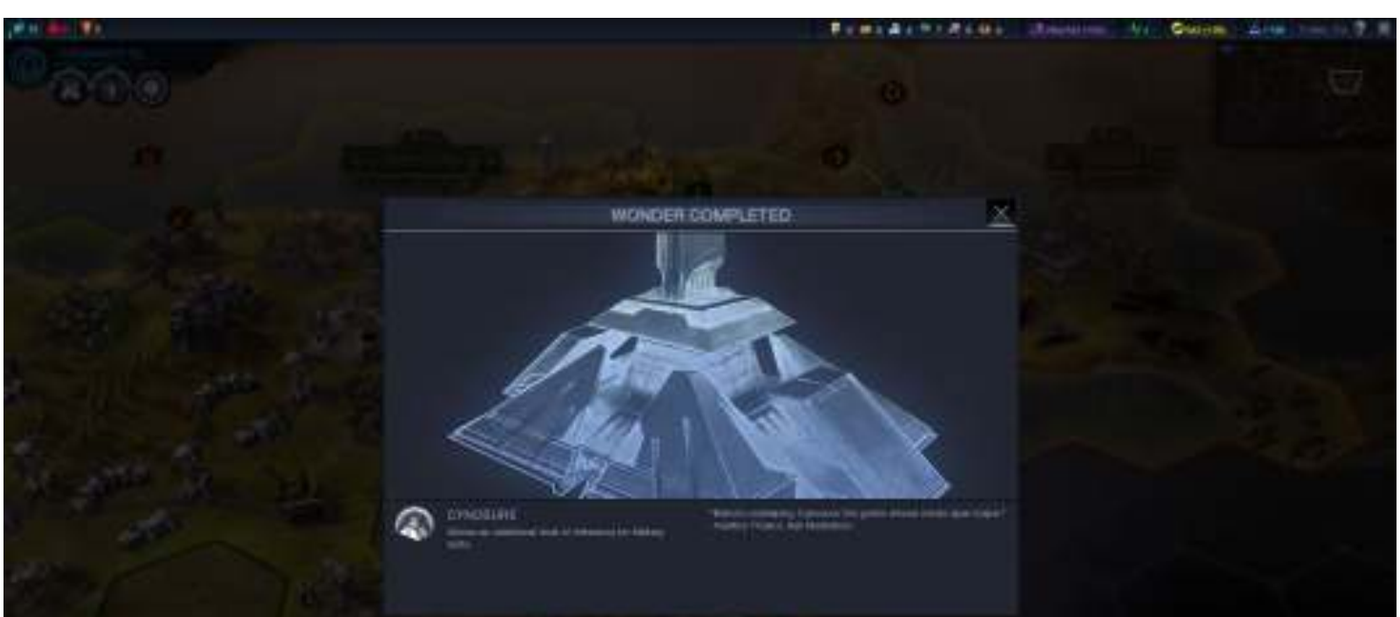
- **Cost**: 1250 Production

- **Yield**: +1 Culture, +25% Production for wonders
- **Prerequisite**: Mechatronics (Tech)

Late-game wonders take forever to construct, so any bonuses you grab are a very good thing. If you're heavily interested in wonder building, you must ensure that you get this before your rivals. If the PAC gets it and you're not playing them, you can kiss multiple additional wonders goodbye.

## ⚠ CYNOSURE

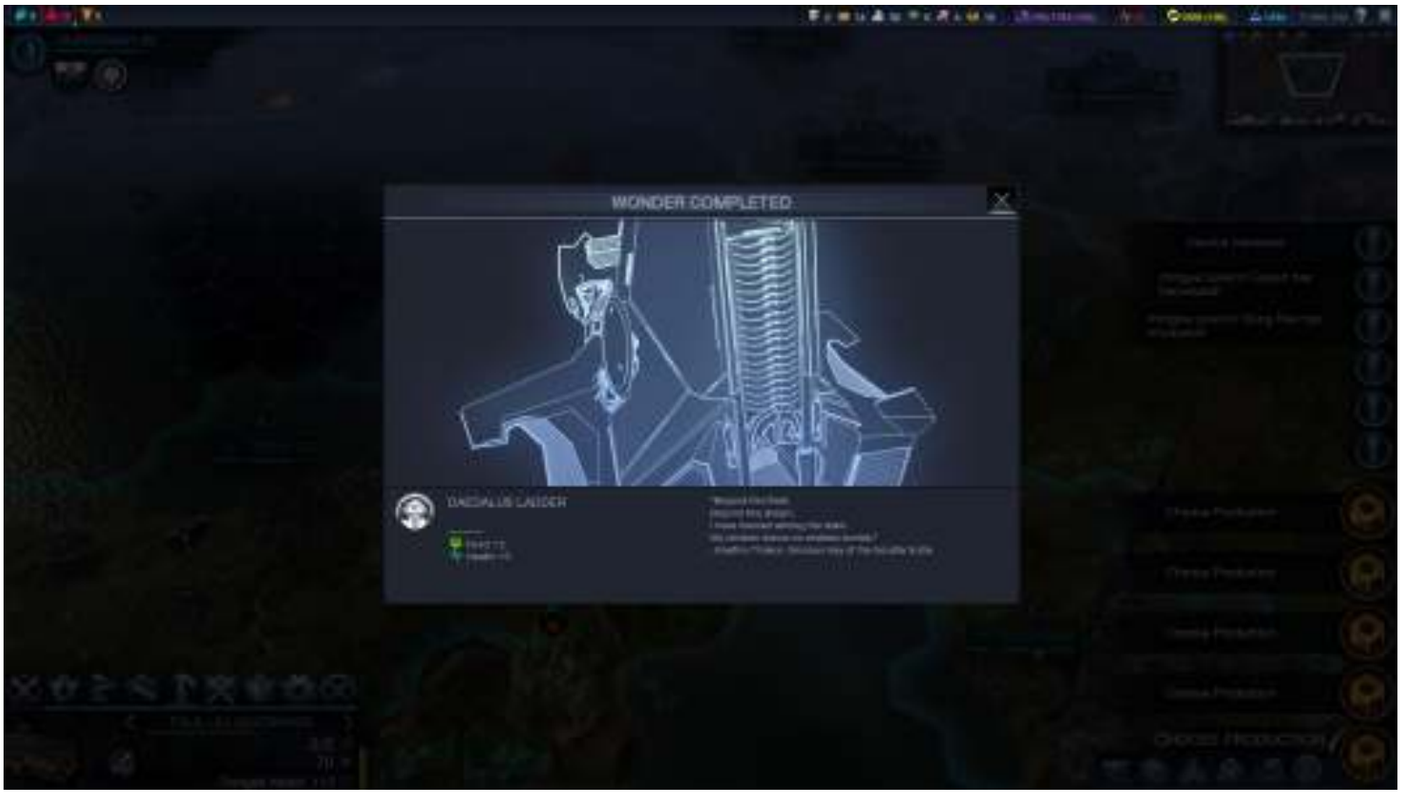
- **Cost**: 1550 Production
- **Yield**: +7 Science, allows 1 additional level of Veterancy
- **Prerequisite**: Synthetic Thought (Tech)



Despite the large bonus to Science, this is a conqueror's wonder. The more important bonus here is one that is much nicer for militant players while only defensively useful to anyone else. Make sure that you have a good range of units in the field before completing the Cynosure. It upgrades your existing military immediately, though it does not upgrade units that are created after the construction of this wonder.

## ⚠ DAEDALUS LADDER

- **Cost**: 1550 Production
- **Yield**: +3 Health, +2 Food
- **Prerequisite**: Augmentation (Tech), Geothermal (Resource)




The Daedalus Ladder doesn't have any amazing bonuses; it's best to grab this wonder if you have a massive city that has completed its building construction period (at least for the moment). If you're still working on major construction, let this one go. It's not a game changer, and you can finish multiple late-game buildings in the same amount of time.

## ⚠ DEEP MEMORY

- **Cost**: 1450 Production
- **Yield**: +7 Culture, gain 2 free virtues

- **Prerequisite**: Human Conservation (Tech)

Deep Memory is a very powerful wonder; the sudden jump in virtues can solve quite a few problems, whether you need military bonuses, better Health, or whatever. This is a great thing to have no matter what style of play you're using, and denying those virtues to other players is a smart move, too.

## ⚠ DRONE SPHERE

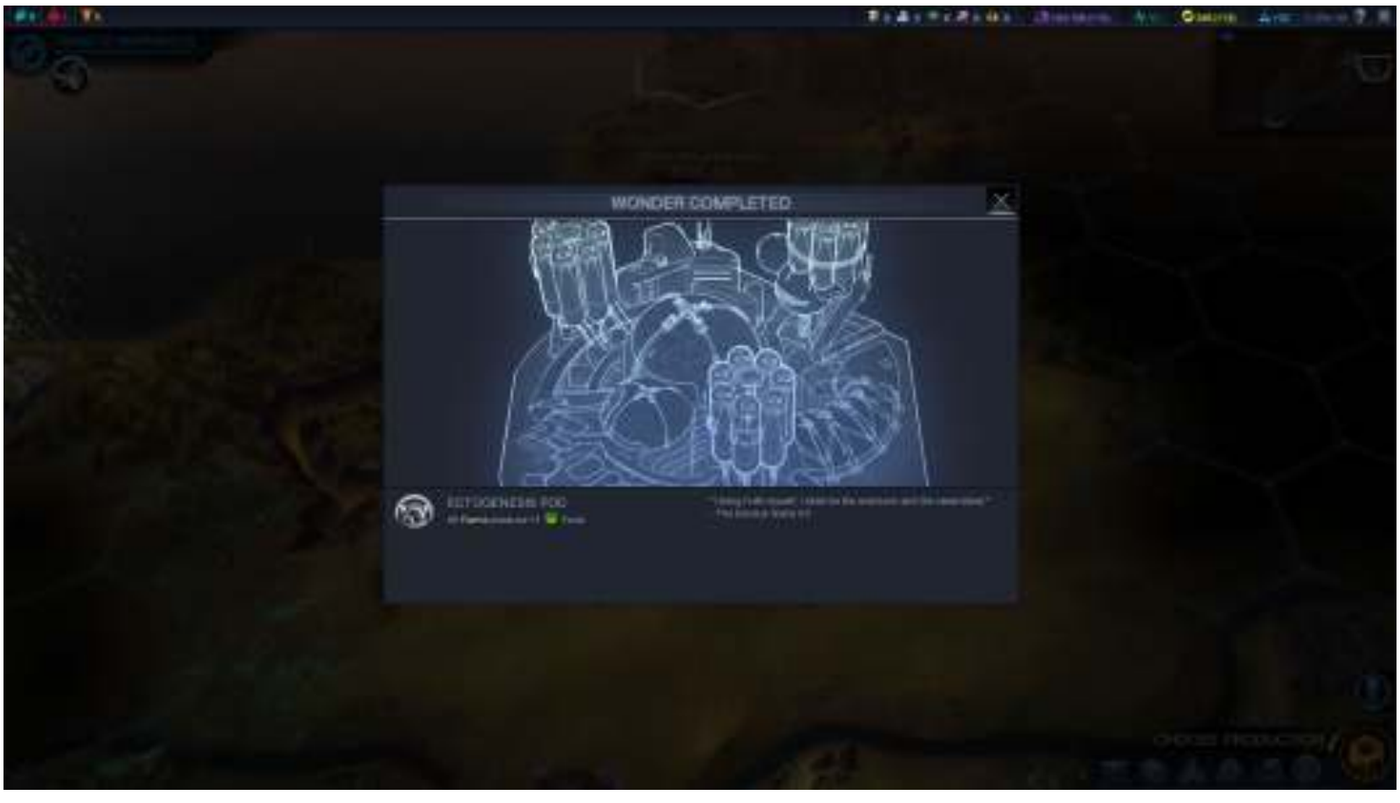
- **Cost**: 650 Production
- **Yield**: +2 Science, free surveillance web, +10 Healing for military units in friendly territory
- **Prerequisite**: Swarm Robotics (Tech)

Extra Healing can be a massive shift in the tide of war. The Drone Sphere lets you fight defensively and still keep your units topped off on Health. Faster Healing means that you can rotate people out of the front, heal, and get back in there that much sooner. You end up with more veterans and a more effective force, if you're careful.

Even on offense, this has some value. Once you've taken an enemy city, you extend your territory. That's the exact time when you need more Healing; your people are tired and beaten up from the siege. With the Drone Sphere in place, you won't need as long to get everyone ready for the next attack.

## ⚠ ECTOGENESIS POD

- **Cost**: 300 Production
- **Yield**: +3 Food, +3 Production, your farms produce +1 Food
- **Prerequisite**: Genetic Design (Tech)




This wonder has a low Production cost, solid local bonuses for a city, and very cool global bonuses for your civilization. Unless you're avoiding major Growth, this is close to a must-have wonder. Genetic Design gives you decent expansion potential already, so the Ectogenesis Pod is a perfect companion to the gene gardens and cloning plants that you unlock at the same time.

## ⚠ GENE VAULT

- **Cost**: 205 Production

- **Yield**: +1 Culture, +4 Food, +10% Growth in your cities
- **Prerequisite**: Genetic Mapping (Tech)

Here is another killer wonder. Its low cost to construct, strong local bonuses, and major global effect make it highly contested. Expect Purity players to be especially fast to grab this, as Genetic Mapping gives you bonus Purity Experience.

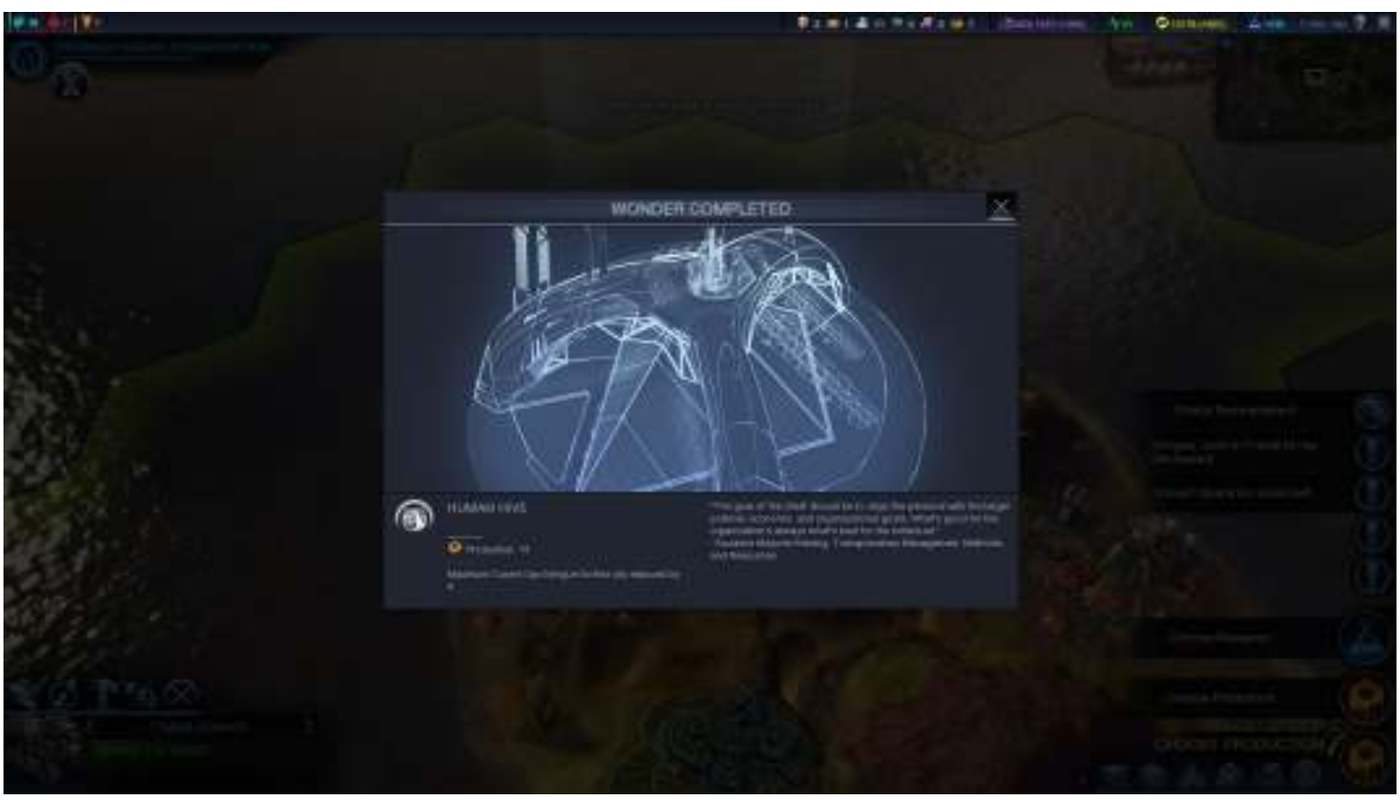
## ⚠ HOLON CHAMBER

- **Cost**: 1050 Production
- **Yield**: +5 Science
- **Prerequisite**: Hyperconductors (Tech)

The Holon Chamber is nice for a massive Science city that is trying to collect every possible base Science bonus that it can. Otherwise, you're not looking at much return on your investment. Don't build this anywhere that isn't willing to dedicate to all tiers of Science buildings (and maybe some academies on your tiles nearby).

## ⚠ HUMAN HIVE

- **Cost**: 1150 Production
- **Yield**: +3 Production, maximum Intrigue reduced by 4 for this city
- **Prerequisite**: Euthenics (Tech)




The Human Hive is interesting, but it doesn't have any particular value for your civilization that can't be gained through surveillance webs. Any Intrigue below 4 is mostly benign for your cities, so limiting Intrigue to 1 instead of 3 isn't that critical, especially because it's for a single city.

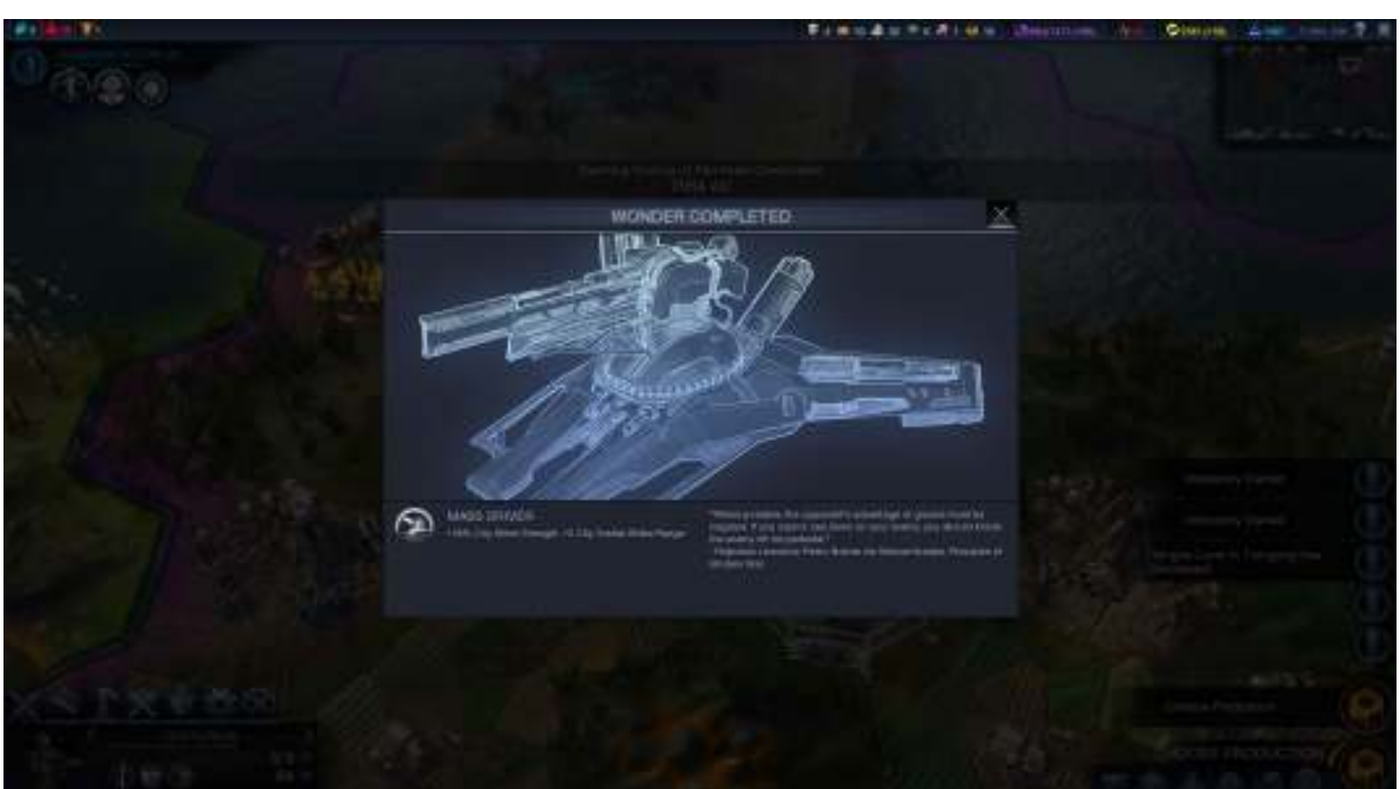
## ⚠ MARKOV ECLIPSE

- **Cost**: 1050 Production
- **Yield**: +1 Culture, +4 Science, military units gain Experience 50% faster
- **Prerequisite**: Artificial Intelligence (Tech)

Major Domination players should push for the Markov Eclipse and get it as quickly as possible. When combined with the appropriate Might virtues, you get a civilization with very dangerous military units.

## ⚠ MASS DRIVER

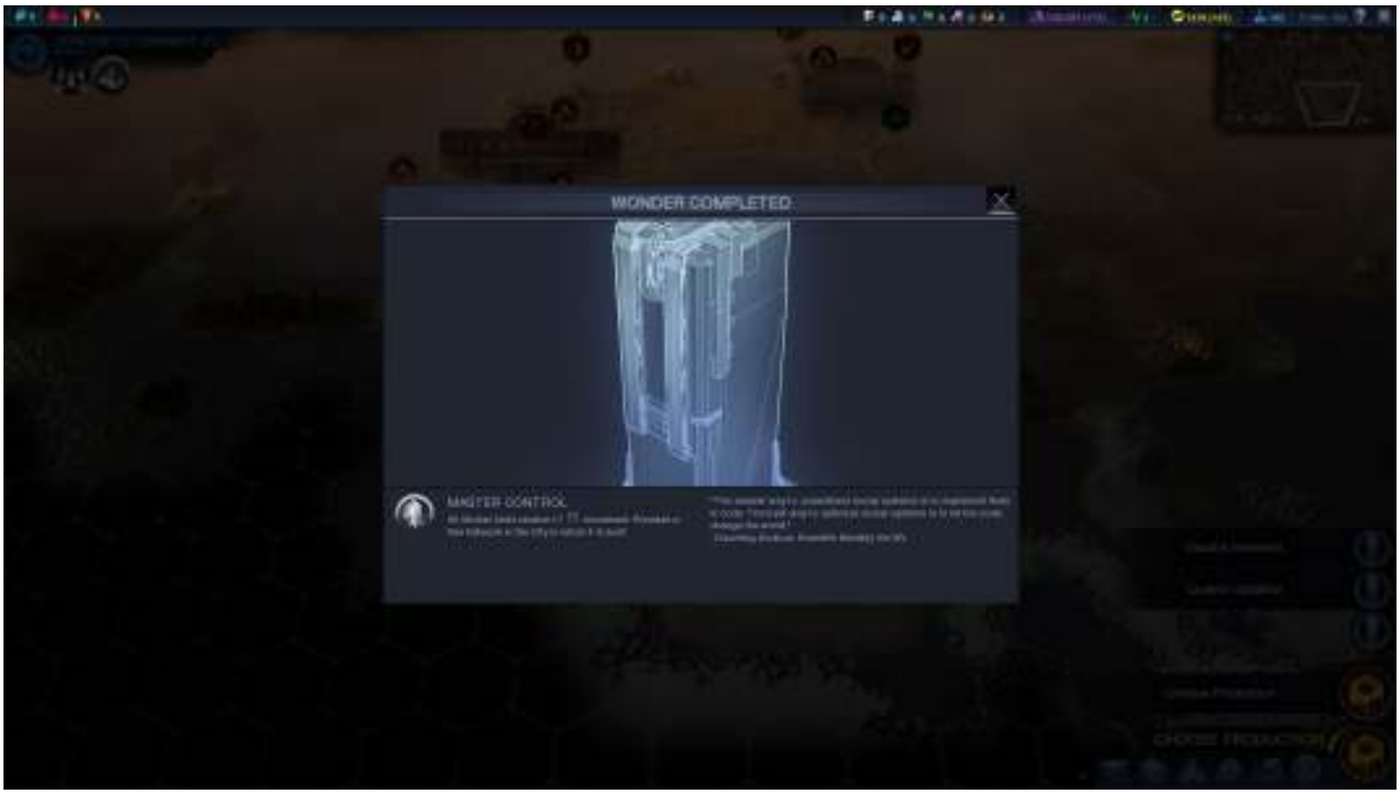
- **Cost**: 950 Production
- **Yield**: +25% City Strike Strength, +5 City Orbital Strike Range
- **Prerequisite**: Ballistic LEV (Tech)



Mass Drivers offer another defensive city upgrade, much like the Archimedes Lever and Armasail. As with those wonders, you should look for a city in your nation that has a natural chokepoint to prevent intruders from getting around it. Construct the Mass Driver there, and blast anything that gets close during a time of war. Don't neglect normal defensive buildings and military units; they still provide way more power than the Mass Driver would on its own.

## ⚠ MASTER CONTROL

- **Cost**: 225 Production
- **Yield**: +1 Culture, workers gain +1 Movement, provides a network in that city
- **Prerequisite**: Autonomous Systems (Tech)

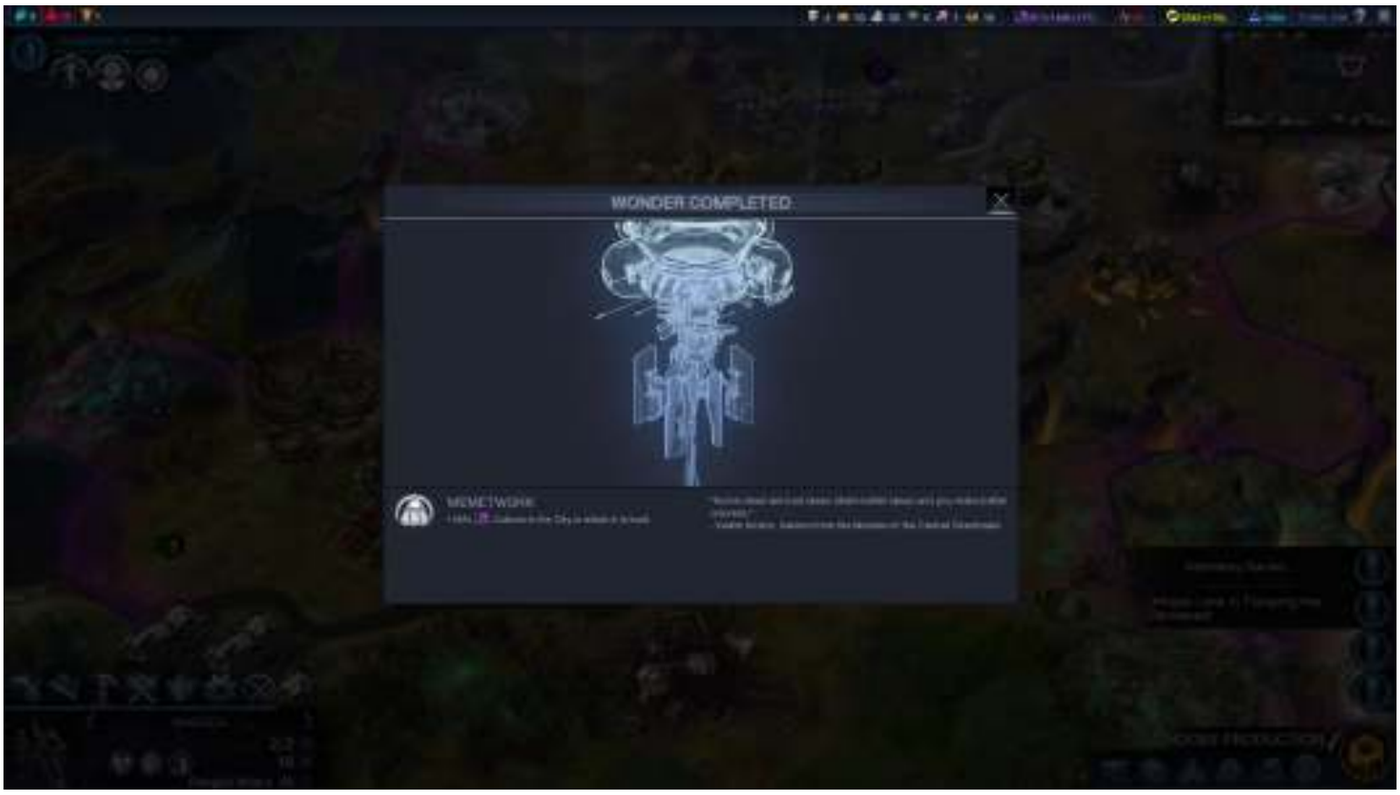



Master Control ends up saving hundreds of wasted worker turns throughout the game. Get onto rough terrain, and still start an improvement on the same turn. Bonus! Move even faster and farther along roads, and get where you're going sooner. Great!

Large, expansive land nations have the most to gain from the Master Control.

## ⚠ MEMETWORK

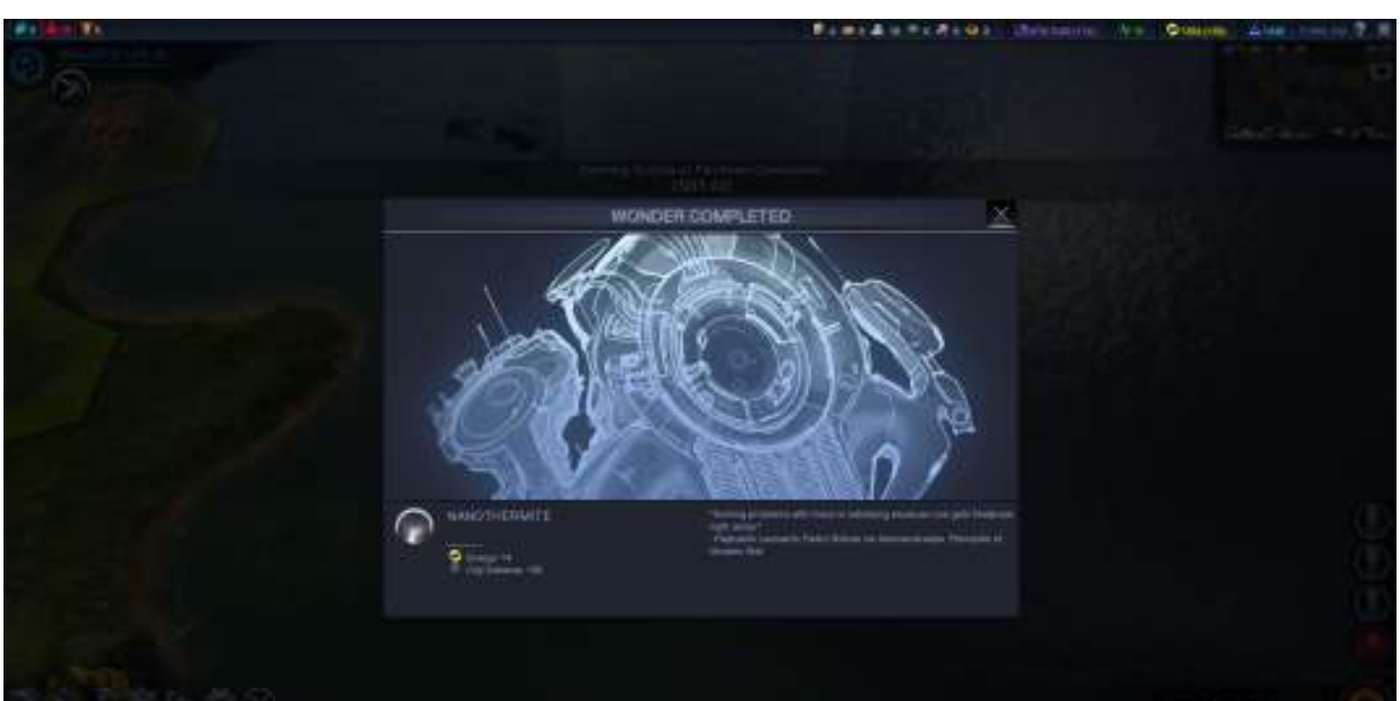
- **Cost**: 700 Production
- **Yield**: +2 Health, +4 Culture, +25% Culture in that city
- **Prerequisite**: Orbital Networks (Tech)




Use the Memetwork in your best cultural city to give yourself a boost in virtue acquisition. Maximize the bonus you get by installing domes around that city and shifting artists into available specialist slots. That one city can soon generate way more Culture than anything else in your nation. Supplement their food with trade routes and terrascapes, as needed. Though costly, terrascapes both keep your population fed and produce additional Culture. This can get pretty incredible if you manage that city carefully.

## ⚠ NANOTHERMITE

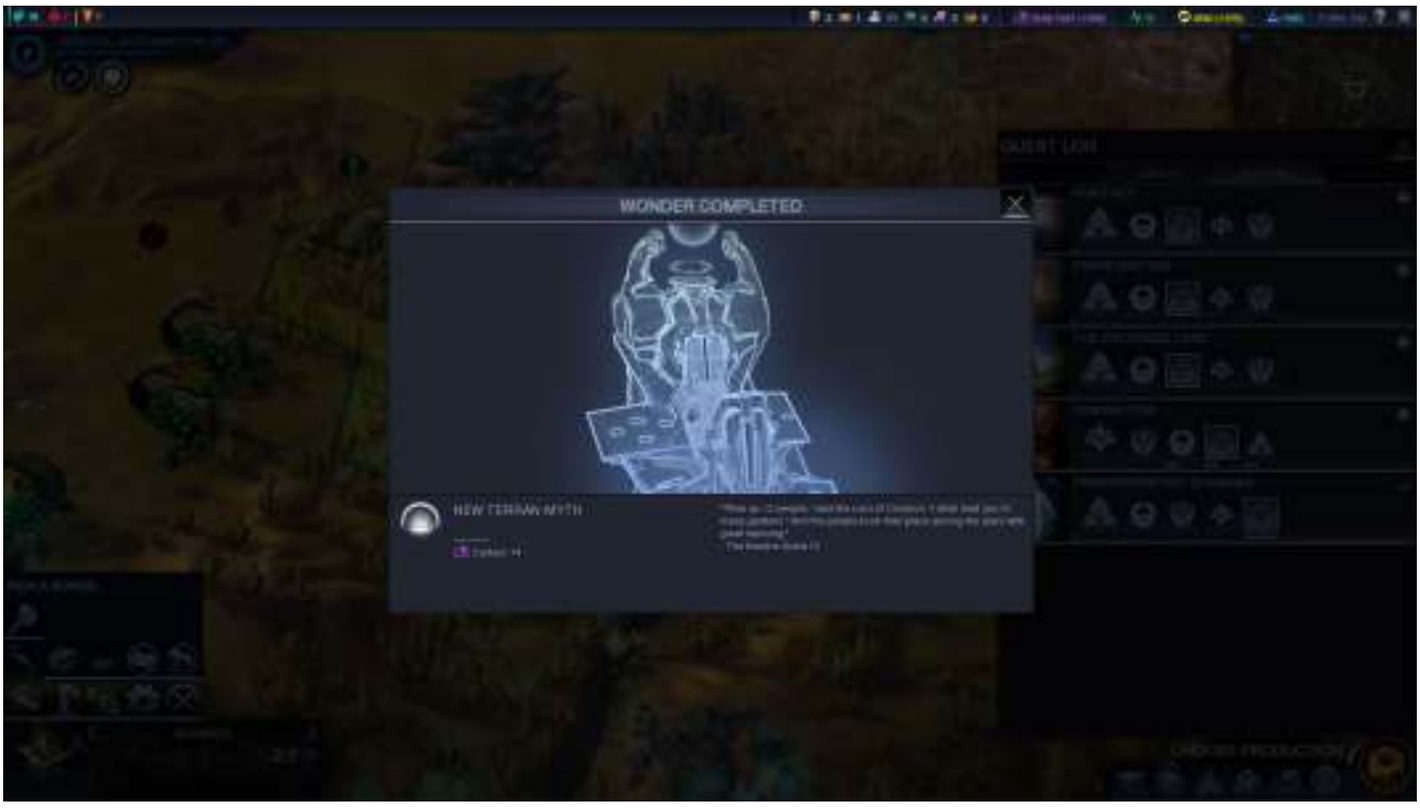
- **Cost**: 1050 Production
- **Yield**: City Strength +30, +4 Energy
- **Prerequisite**: Nanotechnology (Tech)



Nanothermite provides a moderate defensive boost for a city. Go after Nanothermite around chokepoints, and enjoy the base Energy bonus it provides. Neither of these provides huge swings in power for that city, so this wonder is more of a target of opportunity.

## ⚠ NEW TERRAN MYTH

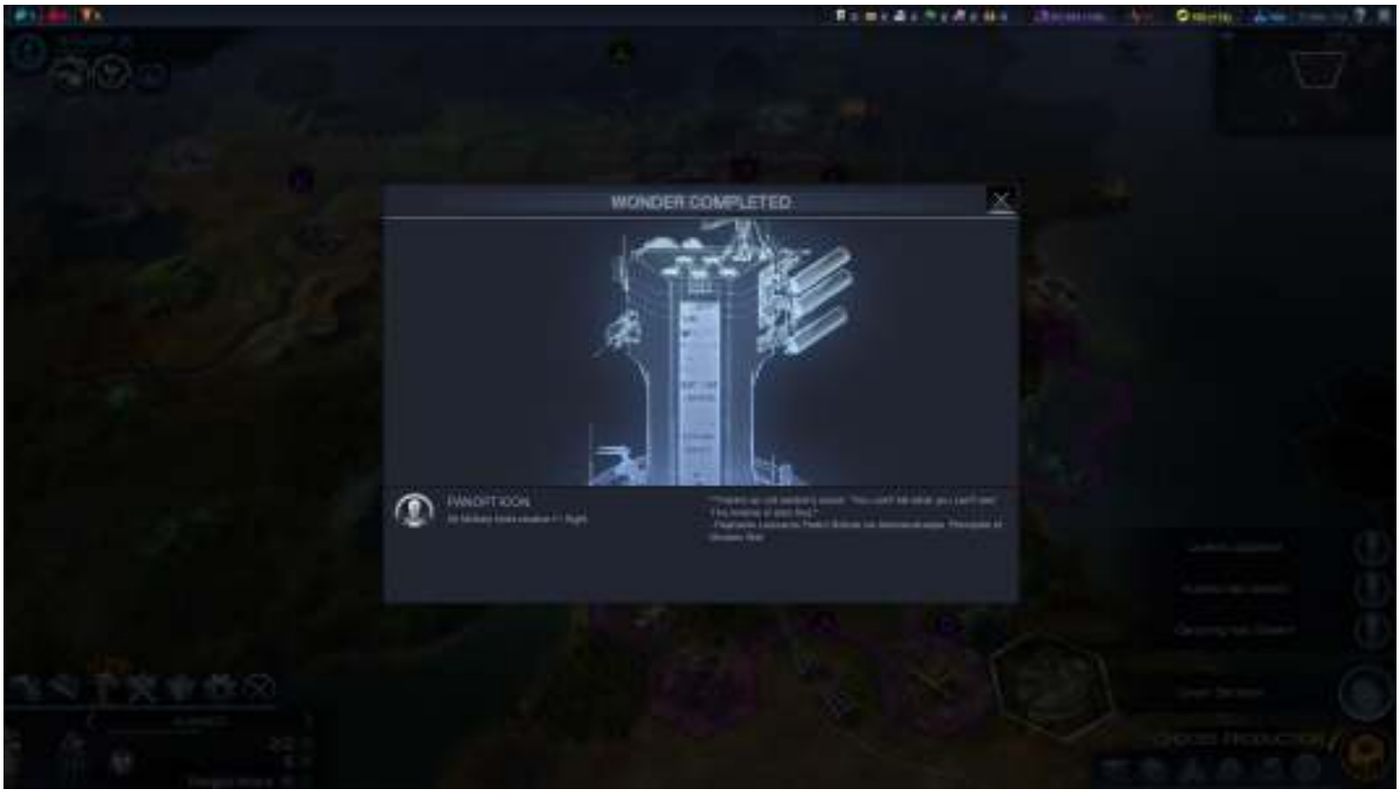
- **Cost**: 750 Production
- **Yield**: +4 Culture
- **Prerequisite**: Human Idealism




This is only a good wonder if you're adding it to a massive Culture city or if you have a city that isn't constructing anything else at the moment.

## ⚠ PANOPTICON

- **Cost**: 250 Production
- **Yield**: +1 Culture, +1 Sight for military units
- **Prerequisite**: Defense Grid (Tech)

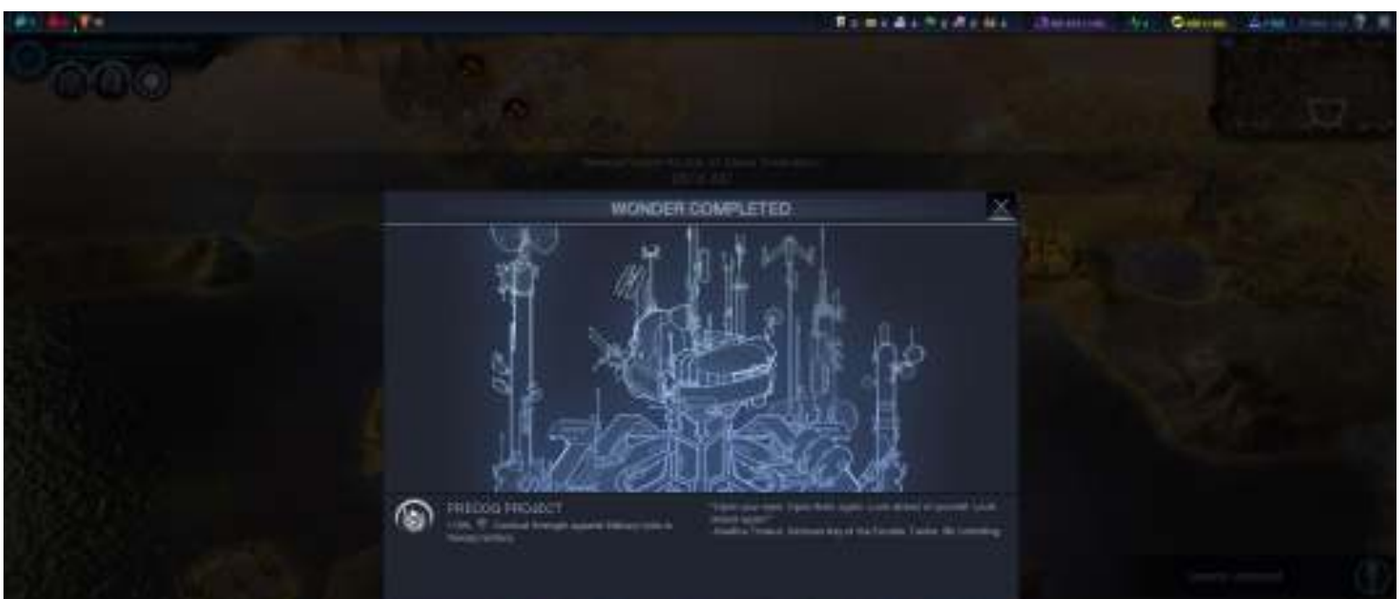



Your military units get a decent upgrade out of the Panopticon. Seeing farther means that it's easier and safer to scout, and your ranged units have a slight edge in combat because they can see enemies sooner and prepare themselves. This is so much fun when you rely on fast rovers to scout and pillage enemy territory.

Defensive and offensive players benefit well from this, so there aren't many players who won't try to get this wonder at some point. The key issue is when you want to research Defense Grid, a Technology that isn't as useful in the early game unless there is a sudden war during the expansion period. If you're willing to sacrifice some of your Research time, you can usually grab Defense Grid early and construct the Panopticon before anyone else has the chance to try.

## ⚠ PRECOG PROJECT

- **Cost**: 450 Production
- **Yield**: +2 Health, +2 Culture, 15% Combat Strength vs. military units in friendly territory
- **Prerequisite**: Collaborative Thought



The Precog Project is a defensive dream. The bonus you get during defensive campaigns is quite worthwhile, so your defenders dish out tons of damage and won't go down easily. Combine this with Healing bonuses to make your nation agonizing to campaign against. Aggressors are likely to go elsewhere when they realize how much their war is going to cost them.

## ⚠ PROMETHEAN

- **Cost**: 950 Production
- **Yield**: +4 Health, +2 Culture, gain 1 free virtue
- **Prerequisite**: Transgenics (Tech)

You can never complain about instant free virtues. They allow your nation to get ahead of the game with any type of bonus that you need. Promethean is always a solid choice for a wonder, regardless of your playstyle.

## ⚠ QUANTUM COMPUTER

- **Cost**: 1050 Production
- **Yield**: +5 Science, gain 1 free Technology

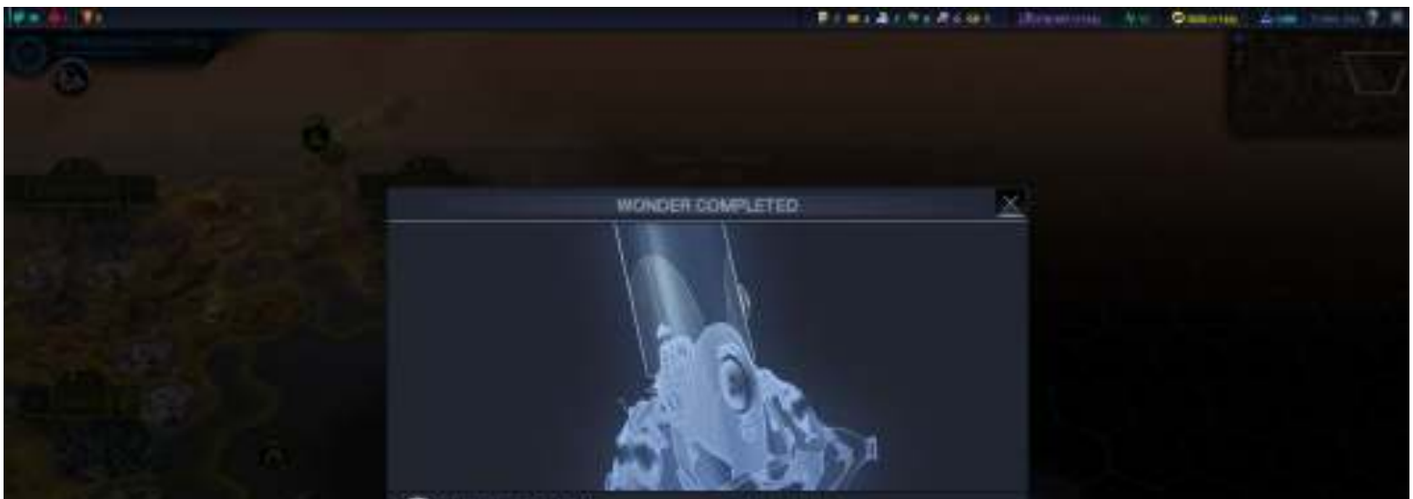
- **Prerequisite**: Field Theory (Tech)

More free stuff! Construct the Quantum Computer to get a sudden jump in your Research. Because you can pick the exact piece of tech to gain, it's worthwhile to prepare for this wonder ahead of time. Look through the tech web to see what you need the most but can't afford to research yet (because it would take too long). Grab Technology close enough to unlock the Research potential for your target tech, and use the Quantum Computer to score the free Research.

Don't simply get something because it's expensive. Make this count! Find something that is going to give you a major edge in affinity, a building that you desperately need, a victory project, etc.

## ⚠ RESURRECTION DEVICE

- **Cost**: 1350 Production
- **Yield**: +8 Health
- **Prerequisite**: Artificial Evolution (Tech)



Your current game will make it very clear if your civilization needs this wonder. Players with heavy Prosperity investment are likely to say, "I'm healthy enough already" by the time that this wonder is available. Others might be wrestling with poor Health, and this could be the exact shot in the arm that they need.

## ⚠ STELLAR CODEX

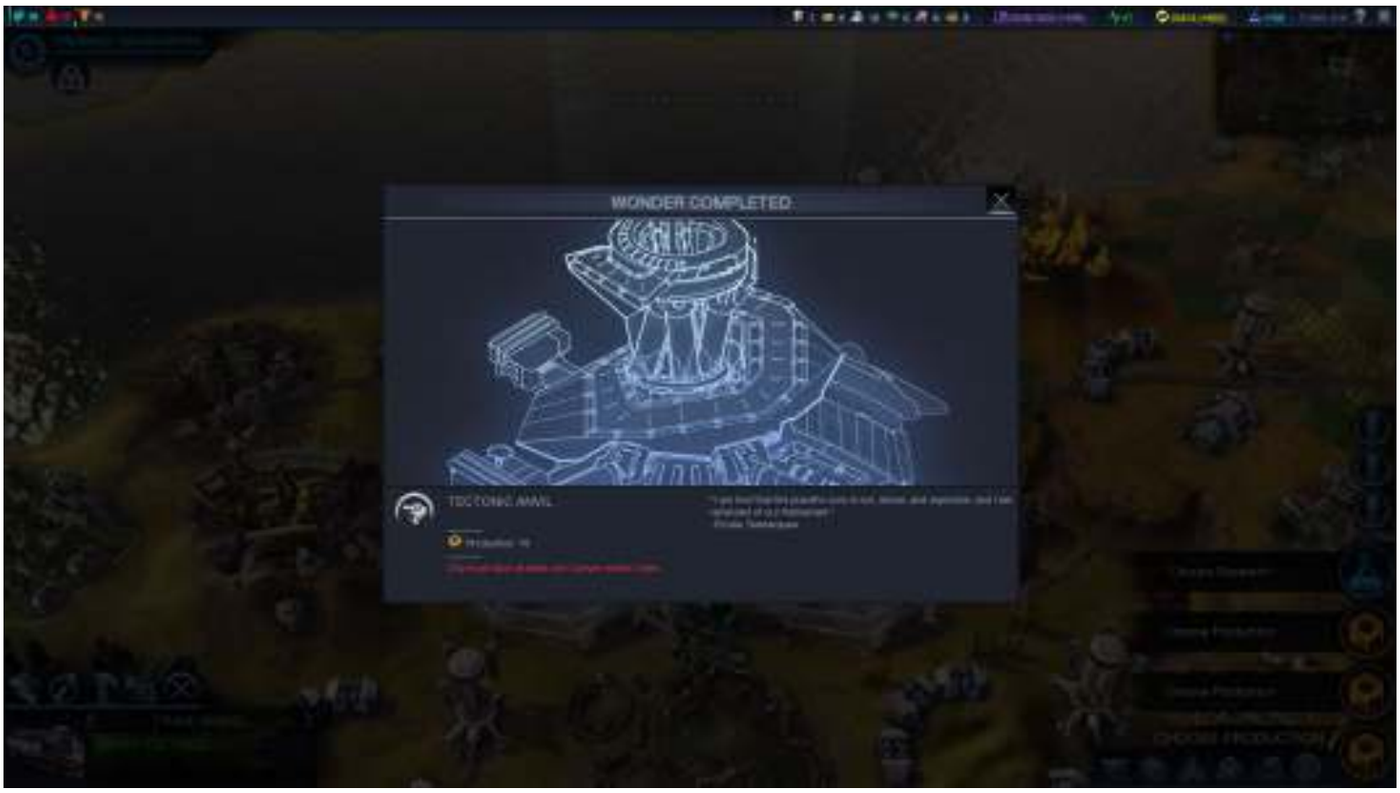
- **Cost**: 225 Production
- **Yield**: +3 Science, +10% Production for orbital units, +4 Orbital Coverage for that city
- **Prerequisite**: Ballistics (Tech)

The Stellar Codex is useful for making one of your cities into a major orbital producer. Grab other Production buildings and coverage enhancers, and then shoot satellites far and wide while either developing your territory or setting up orbital bombardment to help with warfare.

## ⚠ TECTONIC ANVIL

- **Cost**: 1550 Production

- **Yield**: +9 Production
- **Prerequisite**: Metamaterials (Tech), Geothermal (Resource)




Though too costly to be efficient at your leisure, this wonder is excellent for Production cities that have already finished their major buildings.

## ⚠ XENODROME

- **Cost**: 750 Production
- **Yield**: +4 Culture, adds a Xeno Sanctuary to that city
- **Prerequisite**: Alien Ethics (Tech), Geothermal (Resource)

This is another good wonder for creating a massive Culture city. Ensure that your lower-tier Culture buildings are in place, get your Xenodrome, and add domes if you want even more cultural power.

## ⚠ XENOMALLEUM

- **Cost**: 1050 Production
- **Yield**: +7 Energy, +2 Energy for generators
- **Prerequisite**: Bioengineering (Tech)

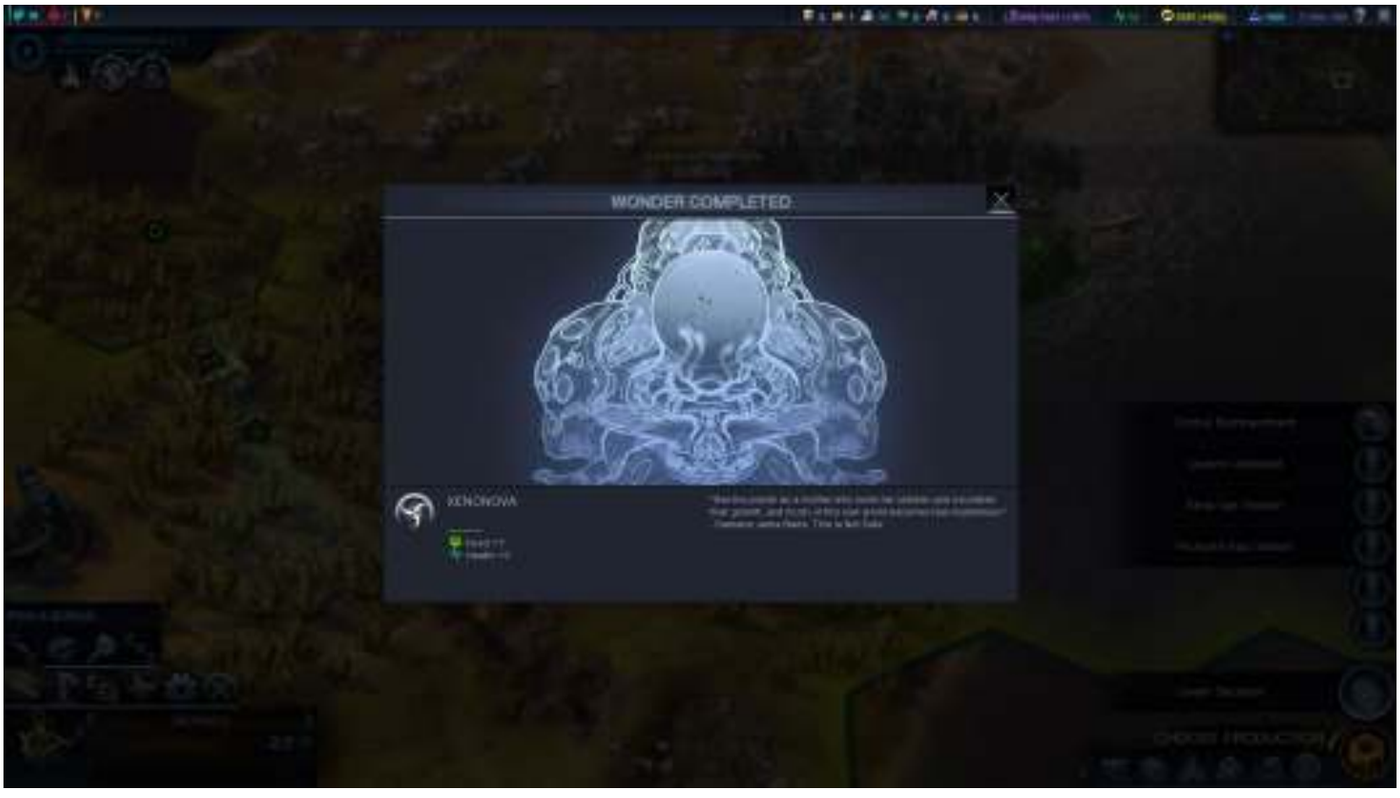
This is one of the best economic wonders in the game. Construct this in a major financial city, and watch your income jump when it completes. If you succeed, generators become very lucrative financial improvements instead of just being nice.

## ⚠XENONOVA

**Cost**: 1150 Production

**Yield**: +2 Health, +7 Food

**Prerequisite**: Alien Materials (Tech)




Useless globally but powerful in a local sense, the Xenonova gives one of your cities a major Growth boost. Use this in a high Production city to compensate for any lack of Food. You can afford to have more mines and manufactories around with this much base Food generation.

Wonders, National Wonders, & Projects

# Master List for National Wonders

## ⚠ CULPER LODGE

- **Cost**: Free
- **Yield**: Covert agents become special agents
- **Prerequisite**: None

Watch your quests in the late game. Eventually, you'll get a chance to earn the Culper Lodge. When this occurs, you get to have all of your spies become special agents instead of having to work their way up through the ranks.

## ⚠ HEADQUARTERS

- **Cost**: Free
- **Yield**: +1 Culture, Defense +6, +4 Energy, +2 Science, +3 Production
- **Prerequisite**: None

The capital city for your nation gets this national wonder automatically, which makes that city much more productive. Note that your capital is the city that must be connected with others via water or roads for economic bonuses to occur, so connect everything to your capital as soon as possible.

If you lose your capital during a war, the Headquarters are moved to a new city. They'll return to the old capital if you ever retake it.

## ⚠ SPY AGENCY

- **Cost**: 200 Production
- **Yield**: Gain 3 spies
- **Prerequisite**: Computing (Tech)

Build this as soon as you learn Computing. When it completes, you are given your first three spies and can start launching covert operations!

Wonders, National Wonders, & Projects

# Master List for Projects

## ⚠ BEACON

- **Cost**: 1650 Production
- **Yield**: Final element for Contact victory
- **Prerequisite**: Decode Signal

The third project in the Contact victory chain, this Beacon gets you toward the end of the game. Energy is devoted each turn from your nation to need the strength of the Beacon. The more spare Energy you have, the faster your victory is secured. Have defenders guard the borders while all internal cities devote their Production toward bonus Energy.

## ⚠ DECODE SIGNAL

- **Cost**: 850 Production
- **Yield**: Allows Beacon construction
- **Prerequisite**: Transcendental Equation

After finishing the Transcendental Equation, you must work on this project if you're trying to win by a Contact victory. Get this done so that you can start going after the Beacon.

## ⚠ EMANCIPATION GATE

- **Cost**: 1750 Production
- **Yield**: Emancipation victory
- **Prerequisite**: Hypercomputing (Tech)

Complete this project to move toward an Emancipation victory. Once the gate is complete, send military units through the gate every turn. The more Combat Strength each unit has, the more they advance your progress toward victory. Make sure to defend the city nearby and the gate itself so that enemies can't stop your progress.

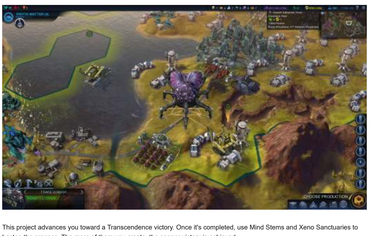
## ⚠ EXODUS GATE

- **Cost**: 1750 Production
- **Yield**: Promised Land victory
- **Prerequisite**: Nanotechnology (Tech)

This project gets you closer to a Promised Land victory. Finish the Exodus Gate, and protect that area while Earthling settlers pass through the gate. When enough of them get through, you win the game.

## ⚠ MIND FLOWER

- **Cost**: 1900 Production
- **Yield**: Transcendence Victory
- **Prerequisite**: None



This project advances you toward a Transcendence victory. Once it's completed, use Mind Stems and Xeno Sanctuaries to hasten the process. The more of them you create, the sooner victory is achieved.

## ⚠ TRANSCENDENTAL EQUATION

- **Cost**: 450 Production
- **Yield**: Progress toward Contact victory
- **Prerequisite**: Transcendental Math (Tech)

This is the first major step toward achieving the Contact victory. Complete this project, and then start working on the Decode Signal project when that becomes available.

Terrain, Features, Resources, and Artifacts

# Terrain (Tiles)

This chapter explains everything about the types of tiles that make up the game's map and all of the various things that appear on those tiles to modify their values and functionality.

## TERRAIN (TILES)

The game board is broken up into hex tiles that cover everything and everywhere. If you look carefully, you can see the differences between all types of tiles just with a visual scan. These areas look different and have varying statistics in regard to resources they generate and how units move through them.

City Yield is the resource capability of a tile. Does that tile generate Food, Production, Energy, or additional resources of any type? To determine this, use your mouse to highlight a tile and see the tip that pops up. When you're looking to develop an area, see how many tiles are worth developing. Too many desert or tundra tiles make for a weak city that won't thrive. It won't have the Food to grow or the Production to complete its buildings and units.

Movement Cost is the price for moving through an area. Many tiles cost one movement to get through, but others cost more because of their rough terrain. Several tiles may even be unpassable unless you're in a levitating craft (and those are later-game units).

Combat Modifier is a bonus to Combat Strength that is given for units that are attacked in that area. The rougher the terrain, the better these bonuses often are.

### CANYON

Canyons are deep chasms in the surface of this alien planet, impossible for non-flying units to move across. They're not particularly helpful to a city, except as barriers to approach.

Settle near canyons if you're close to a border with a more aggressive militarist. This limits the number of ways that your opponent can approach your city during a siege. That leads to a bottleneck, where even a superior force won't be able to use all of their best units. Defenders gain a humungous advantage if they bottleneck their opponents because there is more time to bombard them from the safety of their cities.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Canyons are impassable except to air and hover units.

# COAST

Coast hexes are the ocean hexes directly adjacent to land. They provide Food and Energy to nearby cities. Only naval units, air and hover units, and "embarked" land units may enter coastal hexes.

Your workers now improve water tiles differently than they used to. Before, cities constructed work boats and used them up when producing water improvements. Now, you simply embark your worker, improve the tiles just like the ones on land, and disembark whenever you're done. That's sure a nice perk! Don't forget to improve coastal tiles as soon as you can to get those bonuses.

Coastal areas get a moderate amount of alien traffic. Keep these waterways clear if you're fighting alien influence. It's easiest to do that by placing ranged units inside your coastal cities. Whenever anything gets too close, wake up the ranged units, and fire away (using the city's own defenses to augment your damage output). This helps get Experience for your younger military units, so there are multiple advantages here.

If you're playing peacefully with the aliens, let them swim by and have their fun.

- **Food**: 1
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Cannot build cities on coasts; only naval, air, hover, or embarked units may enter this kind of tile.

# DESERT

In general, desert hexes are remarkably barren. They provide almost no benefits to nearby cities (unless the desert contains a river or resource, of course), and units occupying them receive a defensive penalty in combat.

Try to avoid settling in heavy desert areas because of these downsides. In *Civilization V*, you had access to wonders that made deserts potentially rather useful, but in this game, you must rely on later-game tile improvements instead. Workers eventually get good options for this, but it's costly in terms of upkeep and an investment of worker turns.

If you do settle a city near a desert, make sure to get a vivarium in that city as soon as you can (purchase one outright, if possible).

- **Food**: 0
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

# GRASSLAND

Generally, grassland produces the most Food of any terrain type. Cities constructed near grasslands tend to grow faster than cities built elsewhere.

Grasslands aren't great for defense because they're easy to sweep across with large military forces. They don't have defensive bonuses, so you're going to grow well but be exposed during warfare. Try to block off open grasslands with defensive units or entire cities elsewhere that prevent easy access to your heartland.

- **Food**: 2
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

## HILLS

Hills are difficult to improve and hard to move through, but they provide good defensive bonuses, and you can find many different resources there. Additionally, units atop hills can see over "blocking terrain." Hills provide increased productivity to a nearby city, as well as important combat bonuses.

Station ranged units on hills, especially if there is additional rough terrain nearby. This prevents enemies from approaching quickly and killing your ranged buddies, and it gives them time to fire, hassle enemy troops, and even escape if they don't have enough firepower to get the job done before reinforcements arrive.

Fortified melee troops are also wonderful when they're deployed on hills. The cumulative bonuses from fortification and rough terrain make them murderously annoying to kill.

- **Food**: 0
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food 0

## LAKE

A lake is any body of water 10 tiles or smaller in size that is completely surrounded by land tiles. Lakes are easier to develop cities near than ocean territory, which demands that you have water refineries to get the most out of them. When you find lakes in the early game, settle around them aggressively for cities that grow quickly and have strong economies.

If enemies have constructed cities on the other side of a lake, it's worth investing in a small navy to harass them during upcoming warfare. Otherwise, don't put many naval units into lakes. They won't be able to cover much territory, and that's a waste of your resources.

- **Food**: 2
- **Production**: 0
- **Energy**: 1
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Only naval, air, hover, or embarked units may enter a lake tile.

## MOUNTAIN/CRATER

Mountains are upthrusts of terrain, impossible for non-flying units to move through. Craters are the result of meteor strikes on the surface of the planet. Neither is particularly helpful for your colony, save as a barrier to movement by enemy units.

As with canyons, you should eye difficult terrain like this as an opportunity. Your cities near mountains and craters won't develop as well (because these tiles have little resource value), but you can wall off areas of ingress into your empire by settling and defending these awkward spots.

For maximum defensive power, settle on the far side of a river while geographical barriers like mountains prevent access to your city from one or more directions. Enemies will hate you and have a miserable time pounding through your defenses.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food 0
- Mountains and craters are impassable except to air units.

## OCEAN

Ocean hexes are deep-water hexes. They provide Food to a city. Construct a water refinery as soon as you can if your city is heavily surrounded by ocean tiles. These buildings raise the resource value of such tiles by a huge factor and allow coastal cities to thrive much sooner than they would otherwise.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0
- Oceans are only useful for Food and Energy once the nearby city has the proper Technologies to access them. Only naval, air, hover, or embarked units may enter this kind of tile.

# PLAINS

Plains provide a mix of Food and Production to a nearby city. A city surrounded by plains grows more slowly than one in grassland, but it will be more productive.

As with all easy terrain, you must defend yourself carefully when you settle out in the plains. Enemies can sweep through quickly and comfortably with their armies. Stop them at range when the territory is harsher, or keep a strong military near your city so that they can defend it with their lives.

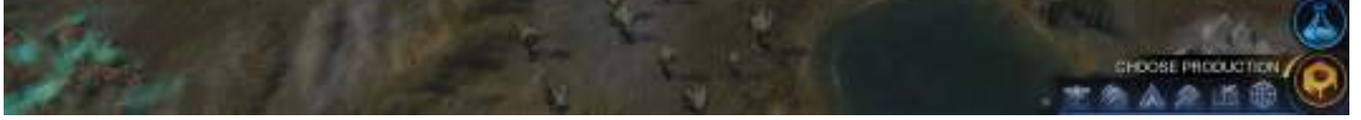
- **Food**: 1
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

# SNOW

Like desert, snow is relative unproductive, with no Food or Production benefit to a nearby city. Of course, a snow hex might contain a useful resource, but otherwise, it is just cold and barren.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

## TUNDRA




Tundra is the semi-frozen land found in the planet's colder climates. It's less useful than plains or grassland but slightly better than desert and snow. Nobody will build cities in the tundra unless they're desperate for resources[md]or they've got nowhere else to go.

Later in the game, when you discover mass digesters, you begin to get more benefits from tundra. These buildings help you use tundra tiles effectively, so a nation that is close to large stretches of tundra should beeline toward organic Technology.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food 0

# Features

Features are elements of terrain or vegetation that appear in a hex, atop the hex's terrain. Think of these as modifiers for the base tile underneath. Features modify a hex's productivity and might also alter the amount of Movement Points (MPs) a unit expends when entering the hex. Features may also provide defensive combat bonuses or penalties to a unit occupying the hex.

## FLOOD PLAIN

Flood plains are low-lying areas adjacent to rivers. Each year, the river floods, thus providing natural irrigation and rich nutrients to the adjacent land. This makes flood plains fertile and the most productive farmland possible.

If you're looking for a high-growth city, settle along flood plains, and reap the benefits of large Food bonuses. Compound this with buildings that generate Food and internal trade routes, as well. This catapults your new city into a higher population and helps it start producing better buildings and more resources much sooner than it would otherwise.

- **Food**: 2
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: -10%
- **Movement Cost**: Food0
- Food1

## FOREST

On Old Earth, forests were a great source of bounty, providing wood for fire, tools, and shelter, as well as homes to many animals used for sustenance and clothing through the ages. While not as critical for survival on this planet, native forests still supply Food and raw materials for Production.

If you think that your territory is safe from invasion, cut down forests for the temporary bonus to Production. When enemies are close, it's wiser to leave forests standing and deploy melee units in them to exploit their defensive advantages.

- **Food**: 1
- **Production**: 1
- **Energy**: 0
- **Combat Modifiers**: +25%
- **Movement Cost**: Food0

Tiles with forests covering them always yield 1 Food and 1 Production, regardless of the underlying terrain type.

## ICE

Ice is just ice, and it's almost entirely useless to civilization. It is impassable (except to air and hover units) and provides no benefits.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food0
- Food1

## MARSH

Although rich in biodiversity, marshes have little to offer a growing colony. You can drain or farm marshes to increase their yield, but they are difficult to move through. Note that military units in marshes receive a significant penalty when attacked.

Avoid settling near marshland unless you have a surplus of workers ready to develop that area. If you have the workers to spare, go ahead and rush through these tiles to make them more productive for your city.

- **Food**: -1
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: -15%
- **Movement Cost**: Food0

## MIASMA

Miasma is a terrain feature that can coexist with any other feature and on any type of terrain except snow and ocean. This is an "infestation" of the tile with virulent spores that are actively hazardous to humans and their machines until the spores are removed or certain Technology is adopted.

Any unit that ends its move on a tile with miasma suffers 10% of their maximum Health in damage. Workers get Technology to protect themselves fairly early on, making it safer for them to stop and develop terrain with miasma. Other units must develop far into the right side of the tech web to remove this problem. (The right side of the tech web is where you find many of the Harmony Technologies).

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Combat Modifiers**: None
- **Movement Cost**: Food0
- Food1

## RIVERS

Traditionally, cities have been built along rivers, and for good reason. Rivers provide irrigation, improving the farmland around the city. They also serve to protect a city, as it is difficult to mount an assault against a city across a river.

Rivers run along the sides of the tiles rather than through them, so rivers provide their benefits to all tiles/units adjacent to them. They grant +1 Energy to all adjacent tiles.

When attacking across a river, the attacking unit gets a 20% penalty to its Combat Strength. Units use all of their remaining Movement Points when crossing a river. There is, however, no additional cost for crossing a river if a road or magrail passes over the river.

Michael Note: Currently roads/magrails do not prevent this penalty. I suspect that's a bug rather than a feature. Please remove the above text later if rivers still stop movement even while bridged.

Terrain, Features, Resources, and Artifacts

# Resources

Resources are found on tiles on the map and provide specific benefits, either in their natural state or when improved. Some strategic resources are revealed only when a specific Technology is researched. Any resource must be within your territory, free of enemy units, and worked by a city to provide its benefit.

Resources are sources of Food, Energy, Production, Science, or Culture, or they provide other special bonuses. To a large degree, your colony's wealth and power will be determined by the number and variety of resources you control. To use a resource, it must be within your colonial borders, and you must construct the appropriate "improvement" in that hex. (For example, you must construct the Plantation improvement to get the benefit from a Fiber resource.)

There are two different kinds of resources in *Civilization: Beyond Earth*: basic and strategic. Each provides yield benefits to nearby cities, and strategic resources have additional important benefits.

While you may not have access to every kind of resource within your own borders, you can trade some of your resources with other leaders for ones you may not possess.

Basic resources provide yield to the city that works them. Their main importance is to facilitate city specialization and improvement. In most cases, basic resources must be improved to provide a yield bonus, but a few provide low yields even in their "raw" state.

Basic Resources

## ALGAE

Algae makes coastal tiles much better for growth. Develop them as soon as you can spare your worker to get the job done. Combine this with a water refinery for maximum benefit from your water tiles.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

## BASALT

Basalt tiles get you a heavy amount of Production on tiles that are already pretty good for that resource. Develop these to give your city's construction efforts a major boost.

- **Food**: 0

- **Production**: +1
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

## CHITIN

Establish cities near Chitin whenever possible. The boost to Food is ideal for getting your city up and running, and Paddocks get some additional benefits later in the tech tree, so that's a nice benefit, as well.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

## COPPER

You won't see Copper too often, but it's out there. Make some extra Energy with it to keep your city profitable. This isn't one of the more essential resources to snag, but it's helpful.

- **Food**: 0
- **Production**: 0
- **Energy**: +1
- **Culture**: 0
- **Science**: Food0
- Food1

## CORAL

Don't overlook Coral! It offers a Culture boost at almost no cost whatsoever. This is critically important in the early game, when faster virtues make a huge difference in your ability to specialize your nation and expand successfully.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: +1
- **Science**: Food0
- Food1

## FIBER

Fiber gives you extra Production, and it's very useful for getting early buildings off the ground to kick-start a new city.

- **Food**: 0
- **Production**: 1
- **Energy**: 0

- **Culture**: 0
- **Science**: Food0
- Food1

# FRUIT

Fruit is great. It's simple and easy. Develop this for added Growth opportunities for your city.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

# FUNGUS

Fungus tastes great and is filling, too. Cities founded near it can get their Growth going without nearly as much effort.

- **Food**: 1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

## GOLD

Another potential resource for free Culture! Get Gold whenever you can.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: +1
- **Science**: Food0
- Food1

## RESILIN

Resilin gets you a nice little Production bonus, perfect for starting cities.

- **Food**: 0
- **Production**: +1
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

## SILICA

As before, Science bonuses of this size mean the most in the very early game. If you have Silica in your city's area of influence, get a worker out to it before starting on any other improvements.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

# TUBERS

Tubers are one of the least important basic resources. They're still better than nothing, but don't prioritize them over other things that have higher bonuses to develop.

- **Food**: +1
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Strategic Resources

Strategic resources are required to produce and supply certain units and are constrained by doing so. Their main role is in building and maintaining an advanced military. The number of specialized units is limited by the quantity of the improved resource; thus, the number of Harmony xenomorph units you can have is limited to the amount of Xenomass you have. Strategic resources must always be improved to count toward the global supply of their type of resource.

Strategic resources often require a Technology to be able to improve them, and some even require a Technology to even be seen. Strategic resources do not provide any bonus yield until they are improved.

# FIRAXITE

Firaxite is the most important resource for Supremacy players. It's used in all of their high-end buildings and units. Make sure to track down Firaxite early in the game so that you can settle cities near good sources of this mineral. You won't be able to use them until later, but it's worth the wait (and you won't have to trade or fight wars to get it when the time comes).

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Firaxite Mine

Units Requiring Resource: Supremacy units

# FLOATSTONE

Floatstone is the resource for Purity players. It's used for their buildings and units. Settle your cities near Floatstone deposits if you're going in the direction of Purity. This is also wise if you have nearby enemies that are likely to go in that direction. Denying them Floatstone limits some of their progress; if they end up not being a threat to you, trade with them and give up some of the minerals while making the most profit you can.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Floatstone Quarry

Units Requiring Resource: Purity units

## GEOTHERMAL ENERGY

Geothermal Energy is good to develop for your nation's finances, but that's not all that it's good for. This resource is used when you construct certain wonders. It's not as essential as one of the major affinity resources, but you won't want to be tapped out on it. Make sure to have a standing supply so that you don't have to delay major construction and lose the chance at a nice wonder.

- **Food**: 0
- **Production**: 0
- **Energy**: 2
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Geothermal Well

Units Requiring Resource: None

# PETROLEUM

Orbital units use Petroleum. You gain large benefits from having orbitals over your territory; they're great for defense, bonus resources, and other strange activities (like spreading or getting rid of miasma). Develop a large supply of Petroleum quickly as you approach the midgame so that you can pop out orbitals like crazy. She who controls the skies controls the battlefield.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Petroleum Well

Units Requiring Resource: Mechanical and orbital units

## TITANIUM

Titanium is also used for many orbitals, so keep it in good supply. Purity players must be even more assertive about getting Titanium because they have special military units that also rely on it.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Mine

Units Requiring Resource: Air and orbital units

## XENOMASS

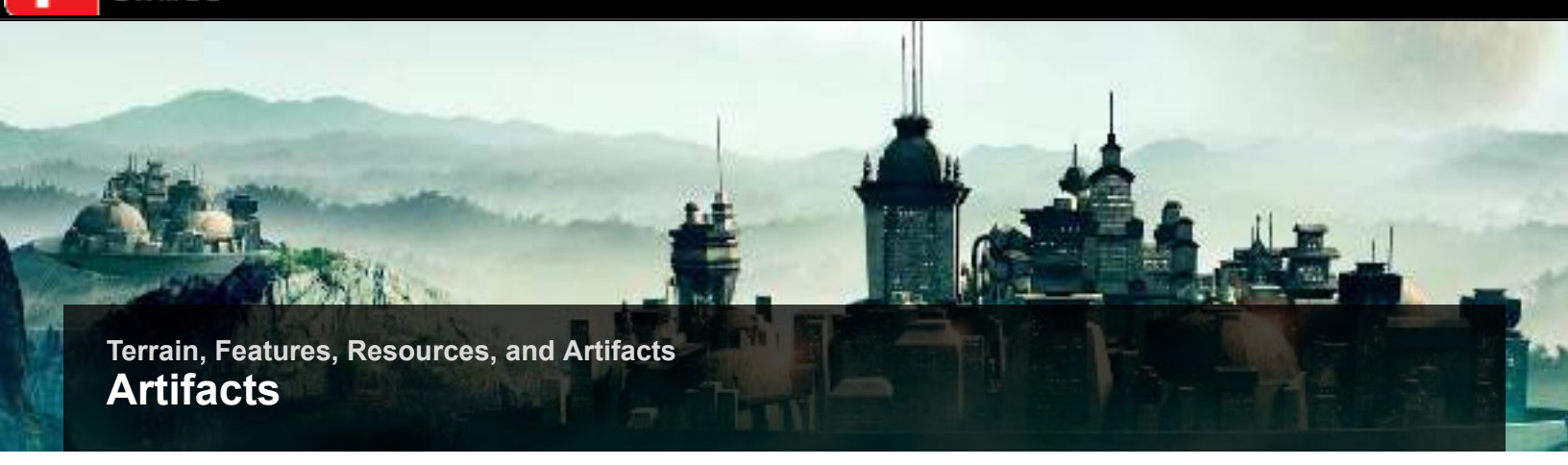
Xenomass is the strategic resource for Harmony players. They practically live on the stuff, and their unique units are even more essential to military survival. (The base Harmony military units are slightly harder to use compared with Supremacy and Purity variants.)

Because of this, Harmony players must scout, obtain, and secure their Xenomass supplies as a primary goal of their nations. Enemies of Harmony players should note and exploit this by denying Harmony players access to terrain with any substantial amount of Xenomass.

- **Food**: 0
- **Production**: 0
- **Energy**: 0
- **Culture**: 0
- **Science**: Food0
- Food1

Improvement Needed to Access: Xenomass Well

Units Requiring Resource: Harmony units



Terrain, Features, Resources, and Artifacts

# Artifacts

Artifacts are items that appear on terrain over time; some start there at the beginning of the game, and others spawn during various events. These artifacts provide no benefit on their own but allow explorers to perform an expedition, which uses the artifact to provide a bonus. The explorer loses an expedition module once the expedition action is completed. If an explorer has no expedition modules remaining, they will no longer be able to perform expeditions until they visit a city that their player controls.

Beware! Working on expeditions while surrounded by miasma can be fatal to an explorer. Make sure that you have enough time to complete your expedition before your health is going to run out. If that's not possible, get a worker over there to remove the miasma before you begin your expedition (workers learn how to remove miasma once you master Alien Biology).

There are four types of artifacts: derelict settlement, crashed satellite, alien skeleton, and Progenitor ruins. Each provides one of several possible benefits, ranging from xenomorph units placed under your control, a one-time boost of Culture, Energy or affinity points, or progress toward a specific Technology.

## Resource Pods

Resource Pods are locations on the map at the game start that provide a bonus to the player who reaches them first, and then are eliminated. Open these to get a minor boost to a given resource. Sometimes, you might also get a minor orbital out of them, which is always nifty!

## ALIEN SKELETONS AND CAVES

Alien skeletons are the remains of colossal xenomorphs. Once an expedition is completed on a tile containing this, the player might receive a large affinity increase or gain an alien unit under their control. Destroying alien nests has a tendency to create caves.

## PROGENITOR RUINS

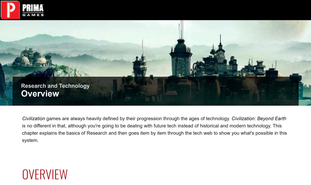
Progenitor ruins are the remains of structures left behind by a nigh-mythical alien race. Once an expedition is completed on a tile containing this, the player will receive either an affinity level increase or progress toward an advanced Technology.

## CRASHED SATELLITES

Crashed satellites are the remains of orbitals that have deorbited and crashed back to the planet. Once an expedition is completed on a tile containing this, the player might receive a large Science or Production increase. Sometimes, these sites are formed when orbitals deorbit.

## DERELICT SETTLEMENTS

Derelict settlements are the remains of earlier failed human colonies. Once an expedition is completed on a tile containing this, the player could receive a large Culture increase or gain extra population in their nearest city. Destroying stations sometimes causes them to become derelict settlements.



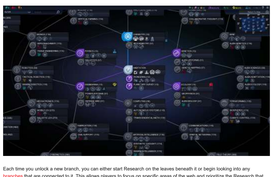
Research and Technology
# Overview

*Civilization* games are always heavily defined by their progression through the ages of technology. *Civilization: Beyond Earth* is no different in that, although you're going to be dealing with future tech instead of historical and modern technology. This chapter explains the basics of Research and then goes item by item through the tech web to show you what's possible in this system.

## OVERVIEW

The biggest change between earlier *Civilization* games and this release is in the presentation and development of Technology. While the underlying idea of Research is still to choose a specific tech and wait for your work to complete on it, there is no longer a semi-linear tree to develop. Instead, there is a web of Technology. You now are going to have many more choices each time you select your next Research goal. That's daunting at first, but it soon leads to a freedom that is very refreshing and exciting.

Take a look at the Technology web, and start to familiarize yourself with the items it lists. Each section of Technology is divided into three pieces. Up top, you get a branch. These are the core principles that you research as you head out from the center of the web. They grant buildings, wonders, and units so that your society becomes more advanced. However, you can develop them further by researching the two leaf techs that are underneath them. Leaf Technologies can't be researched until you have mastered the branch above them. Think of them as focused, applied Research, while the branches are more theoretical in nature.



Each time you unlock a new branch, you can either start Research on the leaves beneath it or begin looking into any branches that are connected to it. This allows players to focus on specific areas of the web and prioritize the Research that they're doing. You can look for Technology that gives you the bonuses and items you need the most, and race after them instead of getting everything researched throughout the entire web.

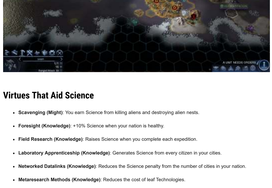
Research takes time. Every item that you want to research has a specific cost. The more Science your nation gains per turn, the sooner you can get each Research item completed. Buildings that yield beakers contribute to your nation's Science tally. The more of them you have, the better off you are when it comes to Research.

## INVESTING IN YOUR SCIENCE

To get more beakers (often referred to simply as "Science"), you must construct laboratories, clinics, and other Science-generating buildings. Have workers add academies to your tiles once you gain access to them, and staff scientist specialists into buildings once you have a larger city and can spare the citizens.

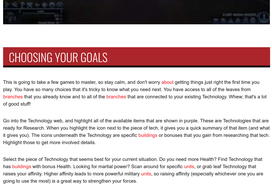
International trade is another great way to earn Science. Trade routes with other players' nations yield Energy and Science. Naval routes are the best for this, but heavy use of international land routes can still earn you a massive bonus to your Science income.

Knowledge virtues are another great way to earn Science for your nation. These traits let you research Technology at an impressive rate, and they're good for your Culture, as well. There aren't many other pro-Science virtues in any of the other lines.



### Virtues That Aid Science

- **Scavenging (Might)**: You earn Science from killing aliens and destroying alien nests.
- **Foresight (Knowledge)**: +10% Science when your nation is healthy.
- **Field Research (Knowledge)**: Raises Science when you complete each expedition.
- **Laboratory Apprenticeship (Knowledge)**: Generates Science from every citizen in your cities.
- **Networked Datalinks (Knowledge)**: Reduces the Science penalty from the number of cities in your nation.
- **Metaresearch Methods (Knowledge)**: Reduces the cost of leaf Technologies.
- **Learning Centers (Knowledge)**: +2 Science from academies.
- **Technoartisans (Knowledge)**: Earn extra Science from your Culture output.



## CHOOSING YOUR GOALS

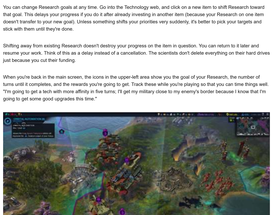
This is going to take a few games to master, so stay calm, and don't worry about getting things just right the first time you play. You have so many choices that it's tricky to know what you need next. You have access to all of the leaves from branches that you already know and to all of the branches that are connected to your existing Technology. Whew, that's a lot of good stuff!

Go into the Technology web, and highlight all of the available items that are shown in purple. These are Technologies that are ready for Research. When you highlight the icon next to the piece of tech, it gives you a quick summary of that item (and what it gives you). The icons underneath the Technology are specific buildings or bonuses that you gain from researching that tech. Highlight those to get more detailed details.

Select the piece of Technology that seems best for your current situation. Do you need more Health? Find Technology that has buildings with bonus Health. Looking for martial power? Scan around for specific units, or grab leaf Technology that raises your affinity. Higher affinity leads to more powerful military units, so raising affinity (especially whichever one you are going to use the most) is a great way to strengthen your forces.

### What Colors Mean In The Tech Web

- **White**: Technology that has already been researched
- **Purple**: Technology that can be researched as soon as you want
- **Blue**: Technology that is being researched currently
- **Grey**: Technology that cannot be accessed yet



You can change Research goals at any time. Go into the Technology web, and click on a new item to shift Research toward that goal. This delays your progress if you do it after already investing in another item (because your Research on one item doesn't transfer to your new goal). Unless something shifts your priorities very suddenly, it's better to pick your targets and stick with them until they're done.

Shifting away from existing Research doesn't destroy your progress on the item in question. You can return to it later and resume your work. Think of this as a delay instead of a cancellation. The scientists don't delete everything on their hard drives just because you cut their funding.

When you're back in the main screen, the icons in the upper-left area show you the goal of your Research, the number of turns until it completes, and the rewards you're going to get. Track these while you're playing so that you can time things well. "I'm going to get a tech with more affinity in five turns; I'll get my military close to my enemy's border because I know that I'm going to get some good upgrades this time."

## PATTERNS IN THE WEB

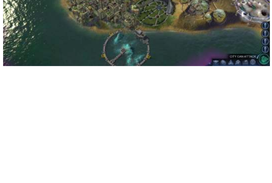
There is absolutely a method to the layout of the web. Take some time scanning the Technologies, and you'll start to see this. Sure, more expensive Technologies are on the outer circles, with the inner circle costing far less Science. That's obvious, but there is much more to the pattern than that.

Look at the number of Purity units and affinity on the left side of the web. That is clearly intentional. The Purity victory condition is on the left, their unique units are there, and there's 40% more Experience for them (compared with the right side).

The difference is even more pronounced for Harmony. Their victory condition is on the right side, and the gap in Harmony affinity Experience is even greater.

Supremacy is along the bottom of the web.

The top has many buildings that are useful to a wide variety of players.



Before you play, you might assume that this means all players are going to beeline in the direction of their chosen affinity. That's not entirely true. The increased cost of branches on the middle and outer circles encourages players to invest in multiple branches and leaves before pushing out to the outer circles. Because of this, you're likely to gain some Technologies that are all over the place. Beyond that, the buildings and bonuses you gain all over the web are useful. Some might be locked if you don't have enough of a given affinity, but most are available to all players.

It's best that you focus your strongest efforts in the direction of your chosen affinity but backfill other Technologies whenever the cost of moving forward gets too high. "27 turns just to get Mechatronics?!?! I think I'll finally get Alien Sciences."

In times of peace, direct your efforts toward additional buildings, wonders, and tile improvements. When you're planning a war (or worrying that one might come to you), change your goals, and get new units and affinity Experience. If you go after affinity Experience exclusively, you won't end up with big, strong cities. If you only go after cool buildings and infrastructure, someone is going to come in and conquer all of your nice land!

Research and Technology

# Technology Quicklist

## Technology Quicklist

| Technology | Cost (Science) | Prerequisite | Leads To | Benefits |
|---|---|---|---|---|
| Alien Adaptation | 770 | Alien Sciences | N/A | Unlocks Xeno Swarm (unit), affinity gain (Harmony) |
| Alien Biology | 249 | Ecology | N/A | Allows workers to clear miasma, workers immune to miasma, affinity gain (Harmony) |
| Alien Domestication | 1820 | Alien Ethics | N/A | Unlocks Xeno Cavalry (unit), 1 Culture (from Xenomass Wells), affinity gain (Harmony) |
| Alien Ecology | 770 | Alien Sciences | N/A | Unlocks Miasmic Condenser (unit), allows workers to add miasma to tiles |
| Alien Ethics | 1160 | Alien Sciences | Alien Domestication, Artificial Evolution, Planetary Engineering | Unlocks Xeno sanctuary (building), unlocks mind stem (building), unlocks Xenodrome (wonder) |
| Alien Evolution | 3216 | Artificial Evolution | N/A | Xeno Titan (unit), affinity gain (Harmony) |
| Alien Genetics | 770 | Genetic Design | N/A | 1 Culture (from biowell), 1 Science (from Xenomass Well), affinity gain (Purity) |
| Alien Hybridization | 1820 | Transgenics | N/A | Units heal in miasma, affinity gain (Harmony) |
| Alien Lifeforms | 249 | Genetics | N/A | Unlocks alien preserve (building), 1 Culture (from Paddock) |
| Alien Materials | 3216 | Artificial Evolution | N/A | Unlocks Xenonova (wonder), affinity gain (Supremacy) |
| Alien Sciences | 380 | Ecology or Genetics | Alien Adaptation, Alien Ecology, Alien Ethics | Unlocks xenofuel plant (building), unlocks xenonursery (building), workers can build Xenomass Well tile improvement |

| | | | | |
|---|---|---|---|---|
| Artificial Evolution | 2480 | Alien Ethics or Transgenics | Alien Evolution, Alien Materials | Unlocks Resurrection Device (wonder), unlocks Progenitor garden (building), 1 Science (from farms) |
| Artificial Intelligence | 770 | Fabrication or Computing | Hypercomputing, Synthetic Thought, Swarm Intelligence | Unlocks CEL Cradle (building), unlocks Surveillance Web (building), unlocks Markov Eclipse (wonder) |
| Astrodynamics | 2480 | Mechatronics | Orbital Automation, Dark Networks | Unlocks Neoplanetarium (building), unlocks Skycrane (building), unlocks Planet Carver (unit) |
| Augmentation | 2480 | Bionics | Surrogacy | Unlocks Augmentary (building), unlocks Daedalus Ladder (wonder), 1 Energy (from generators) |
| Autogyros | 3216 | Cybernetics | N/A | Unlocks CARVR (unit), affinity gain (Supremacy) |
| Autonomous Systems | 770 | Computing | N/A | Unlocks Master Control (wonder), workers can build the Node tile improvement, affinity gain (Supremacy) |
| Ballistic LEV | 1820 | Mechatronics | N/A | Unlocks Mass Driver (wonder) |
| Ballistics | 249 | Physics | N/A | Unlocks rocket battery (building), unlocks Stellar Codex (wonder) |
| Biochemistry | 249 | Chemistry | N/A | Unlocks water refinery (building), unlocks Petrochemical Plant (building) |
| Bioengineering | 2480 | Biology or Organics | Industrial Ecology, Biometallurgy | Unlocks molecular forge (building), unlocks bioglass furnace (building), unlocks Xenomalleum (wonder) |
| Biology | 770 | Chemistry | Vertical Farming, Bioengineering | Unlocks biofuel plant (building), unlocks growlab (building), workers can build the Dome tile improvement |
| Biometallurgy | 3216 | Bioengineering | N/A | 1 Energy (from Mines), 1 Science (from generators), affinity gain (Supremacy) |
| Bionics | 770 | Physics | Augmentation, Servomachinery, Tissue Engineering | Unlocks bionics lab (building), unlocks institute (building), workers can build the Biowell tile improvement |
| Biospheres | 1160 | Terraforming | N/A | 1 Energy (from domes), 10% city Food carried over after Growth, affinity gain (Purity) |

| | | | | |
|---|---|---|---|---|
| Chemistry | 95 | Habitation | Biochemistry, Biology, Organics | Unlocks laboratory (building), unlocks recycler (building), workers can build the Petroleum Well tile improvement, reveals the Petroleum resource |
| Civil Support | 1160 | Fabrication | N/A | Unlocks Holomatrix (unit), affinity gain (Purity) |
| Climate Control | 1160 | Terraforming | N/A | Unlocks Weather Controller (unit), affinity gain (Supremacy) |
| Cognition | 770 | Genetics or Organics | Collaborative Thought, Social Dynamics | Unlocks neurolab (building), unlocks holosuite (building), workers can build the Academy tile improvement |
| Collaborative Thought | 1160 | Cognition | N/A | Unlocks Precog Project (wonder), affinity gain (Supremacy) |
| Communications | 770 | Computing | Field Theory, Orbital Networks | Unlocks command center (building), unlocks feedsite hub (building), unlocks Tacnet Hub (unit), workers can build the Array tile improvement |
| Computing | 380 | Engineering or Ecology | Artificial Intelligence, Autonomous Systems, Communications, Transcendental Math | Unlocks network (building), unlocks Spy Agency (wonder), unlocks Missile Rover (unit), unlocks Gunboat (unit) |
| Cybernetics | 2480 | Fabrication | Autogyros, Metamaterials | Unlocks node bank (building), unlocks Orbital Laser (unit), Phasal Transporter (unit) |
| Dark Networks | 3216 | Astrodynamics | N/A | Unlocks All-Seer (unit) |
| Defense Grid | 249 | Engineering | N/A | Unlocks defense perimeter (building), unlocks Panopticon (wonder) |
| Designer Lifeforms | 3216 | Synergetics | N/A | Unlocks Rocktopus (unit), affinity gain (Harmony) |
| Ecology | 95 | Habitation | Alien Sciences, Geophysics, Terraforming, Alien Biology | Unlocks vivarium (building), unlocks ultrasonic fence (building), unlocks Miasmic Repulsor (unit) |
| Engineering | 95 | Habitation | Computing, Defense Grid, Fabrication, Power Systems, Robotics | Unlocks thorium reactor (building), unlocks repair facility (building), unlocks Combat Rover (unit), reveals Titanium resource |
| Euthenics | 3216 | Social Dynamics | N/A | Unlocks Human Hive (wonder), affinity gain (Supremacy) |
| Exotic Matter | 3216 | Field Theory | N/A | Unlocks Ansible (wonder), affinity gain (Harmony) |

| | | | | |
|---|---|---|---|---|
| Fabrication | 770 | Engineering, Mechatronics, Artificial Intelligence | Civil Support, Cybernetics | Unlocks alloy foundry (building), unlocks Carrier (unit), workers can build the Magrail tile improvement |
| Field Theory | 2480 | Communications | Exotic Matter | Unlocks field reactor (building), unlocks mantle (building), unlocks Quantum Computer (wonder) |
| Genetic Design | 380 | Genetics | Alien Genetics, Social Dynamics, Transgenics | Unlocks gene garden (building), unlocks cloning plant (building), unlocks Ectogenesis Pod (wonder) |
| Genetic Mapping | 249 | Genetics | N/A | Unlocks Gene Vault (wonder), affinity gain (Purity) |
| Genetics | 95 | Habitation | Alien Lifeforms, Alien Sciences, Cognition, Genetic Design, Genetic Mapping | Unlocks cytonursery (building), unlocks pharmalab (building) |
| Geophysics | 249 | Ecology | N/A | Reveals the Geothermal resource, workers can build the Geothermal Well tile improvement |
| Geoscaping | 3216 | Planetary Engineering | N/A | Unlocks Orbital Fabricator (unit), affinity gain (Supremacy) |
| Habitation | 50 | N/A | Chemistry, Ecology, Engineering, Genetics, Pioneering, Physics, Planetary Survey | Unlocks clinic (building), unlocks Old Earth relic (building), unlocks Worker (unit), unlocks Explorer (unit), unlocks Soldier (unit) |
| Human Conservation | 3216 | Social Dynamics | N/A | Unlocks Deep Memory (wonder), affinity gain (Purity) |
| Human Idealism | 3216 | Social Dynamics | N/A | Unlocks New Terran Myth (wonder) |
| Hypercomputing | 2480 | Artificial Intelligence | Hyperconductors, Neural Uploading | Unlocks hypercore (building), unlocks Emancipation Gate (project), 1 Science (from nodes) |
| Hyperconductors | 3216 | Hypercomputing | N/A | Unlocks Holon Chamber (wonder), affinity gain (Purity) |
| Industrial Ecology | 3216 | Bioengineering | N/A | 1 Production (from farms), affinity gain (Purity) |
| Mechatronics | 1160 | Robotics or Fabrication | Ballistic LEV, Mobile LEV, Astrodynamics | Unlocks LEV plant (building), unlocks optical surgery (building), unlocks Crawler (wonder) |
| Nanorobotics | 3216 | Nanotechnology | N/A | 1 Science (from manufactories), affinity gain (Harmony), required for Transcendence victory |

| | | | | |
|---|---|---|---|---|
| Nanotechnology | 2480 | Robotics | Nanorobotics, Tactical LEV | Unlocks nanopasture (building), unlocks Nanothermite (wonder), unlocks Exodus Gate (project) |
| Neural Uploading | 3216 | Hypercomputing | N/A | Unlocks ANGEL (unit), affinity gain (Supremacy) |
| Orbital Automation | 3216 | Astrodynamics | N/A | Unlocks Deep Space Telescope (unit), 1 Science (from arrays) |
| Orbital Networks | 1160 | Communications | N/A | Unlocks Memetwork (wonder), unlocks Lasercom Satellite (unit) |
| Organics | 770 | Chemistry, Biology, or Cognition | Photosystems, Bioengineering, and Synergetics | Unlocks biofactory (building), unlocks mass digester (building), 1 Energy (from generators) |
| Photosystems | 1160 | Chemistry | Organics | Unlocks Solar Collector (unit), 1 Food (from Plantations), affinity gain (Harmony) |
| Physics | 95 | Habitation | Ballistics, Bionics, Robotics | Unlocks observatory (building), unlocks launch complex (building), unlocks Ranger (unit), 1 Production |
| Pioneering | 80 | Habitation | N/A | Unlocks trade depot (building), unlocks Colonist (unit), unlocks Trade Convoy (unit), unlocks Trade Vessel (unit) |
| Planetary Engineering | 2480 | Terraforming | Geoscaping, Seismic Induction | Unlocks borehole (building), 1 Production (from generators) |
| Planetary Survey | 80 | Pioneering | N/A | Allows units to embark over water, workers can build the Work Barge tile improvement |
| Power Systems | 249 | Engineering | N/A | 1 Energy (from Geothermal Wells), 1 Production (from Quarries), affinity gain (Supremacy) |
| Protogenetics | 1820 | Transgenics | N/A | 1 Culture (from academies), affinity gain (Supremacy) |
| Robotics | 380 | Physics or Engineering | Bionics, Mechatronics, Tactical Robotics, Swarm Robotics, Nanotechnology | Unlocks Tacjet, unlocks autoplant (building), workers can build the Firaxite Mine tile improvement, workers can build the Manufactory tile improvement |
| Seismic Induction | 3216 | Planetary Engineering | N/A | Unlocks Archimedes Lever (wonder), affinity gain (Purity) |
| Servomachinery | 1160 | Bionics | N/A | Unlocks Battlesuit (unit), affinity gain (Purity) |

| | | | | |
|---|---|---|---|---|
| Social Dynamics | 2480 | Cognition or Genetic Design | Euthenics, Human Conservation, Human Idealism | Unlocks civil cr che (building), unlocks Soma distillery (building), unlocks terra vault (building) |
| Surrogacy | 3216 | Augmentation | N/A | Unlocks Aegis (unit), affinity gain (Purity), 10% worker speed bonus |
| Swarm Intelligence | 1160 | Artificial Intelligence | N/A | Unlocks Bytegeist (wonder), affinity gain (Harmony) |
| Swarm Robotics | 770 | Robotics | N/A | Unlocks Drone Sphere (wonder), affinity gain (Harmony), required for Transcendence victory |
| Synergetics | 2480 | Organics | Designer Lifeforms | Unlocks microbial mine (building), unlocks organ printer (building), unlocks Armasail (wonder) |
| Synthetic Thought | 1160 | Artificial Intelligence | N/A | Unlocks Cynosure (wonder), unlocks SABR (unit), affinity gain (Supremacy) |
| Tactical LEV | 3216 | Nanotechnology | N/A | Unlocks LEV Destroyer (unit), affinity gain (Purity) |
| Tactical Robotics | 770 | Robotics | N/A | Unlocks CNDR (unit), affinity gain (Supremacy) |
| Terraforming | 770 | Ecology | Biospheres, Climate Control, Planetary Engineering | Unlocks Gaian Well (building), workers can build the Terrascape tile improvement, workers can build the Floatstone Quarry tile improvement |
| Tissue Engineering | 1160 | Bionics | N/A | Units heal faster, affinity gain (Harmony) |
| Transcendental Math | 770 | Computing | N/A | Unlocks Transcendental Equation (project), starts Contact victory |
| Transgenics | 1160 | Genetic Design | Artificial Evolution, Alien Hybridization, Protogenetics | Unlocks gene smelter (building), unlocks Promethean (wonder), required for Transcendence victory |
| Vertical Farming | 1160 | Biology | N/A | 1 Energy (from farms), 1 Food (from farms), affinity gain (Purity) |

Quests
# Quest Rules

*Civilization* can be extremely hard to pick up for a novice player. To make this an easier process, this version of the series has introduced a quest system. Instead of the game throwing all of the bonuses and concepts at someone from their first turn, the quest system encourages and rewards players as they develop their civilization.

Veteran fans might shrug and say, "What's in that for me?" But have no fear: this system also allows for customization of your nation, and that's always a fun reward. You can give your buildings slightly different bonuses depending on how you want your civilization to function, making each game slightly different as you tweak your quest rewards to give exactly what you need at a given time.

This chapter explains the quest system and provides a list of the quests that are in the game.

## QUEST RULES

Quests are given at varying times throughout your play session. Some of them are handed out after you've met certain precursors. Building rewards are often given after you've already completed construction of the building type in question, so you don't have to worry about them ahead of time. Others might require you to send explorers out to specific areas, to deploy spies against your enemies, or to fight various alien targets.

Use the Quests and Victories menu to see what is currently available. Click on any of the quests that are active to see what you must do to complete them. Anything that focuses on a specific area has a link that immediately zooms to that part of the map. This is helpful for finding caves or other expedition sites that your explorers need to work with.

Once you complete all of the conditions for a quest, you receive your reward. This might be free resources or a permanent upgrade to some of your buildings. If there are choices between two different reward types, an icon pops up to let you quickly go and choose the one you want. Evaluate your options carefully; you can't redo your selection once it's accepted.

Each game, you get the same quests in most regards. Only affinity quests throw a spin at you; these vary depending on choices that you make with your nation. They'll branch out and let you specify whether you're heading toward Harmony, Purity, or Supremacy. Many of the affinity quests have follow-ups that reflect the consequences of your actions.

Quests

# Master Quest List

## Master Quest List

| Quest Name | Requirements | Rewards |
|---|---|---|
| A Biological Imperative | Construct a biofuel plant | +1 Energy or +1 Production from biofuel plants |
| A Tangled Web | Construct a network | Free maintenance or +1 Culture for networks |
| A World of Pure Imagination | Construct a holosuite | +2 Culture from holosuites or a free virtue |
| Acclimation | Construct specific buildings in a chosen city | N/A |
| All That We Can Be | Construct an augmentery | +10% Health or +5% total yields from augmenteries |
| All the Small Things | Construct a microbial mine | +1 Energy/Harmony level or +1 Science/Harmony level |
| Always On | Construct a defense perimeter | +10 City Hit Points or free maintenance for defense perimeters |
| Ancillary Adams | Clear forests from all tiles surrounding your cities | Adds Supremacy Experience and a free colonist |
| As with Man | Supremacy event | Adds Supremacy Experience and bonus Culture |
| Augmentation or Humanity | Event with the augmented | Adds Supremacy Experience or adds Purity Experience |
| Automatic Gratification | Construct an autoplant | +1 trade route or +1 Energy from autoplants |
| Beauty in the Eye of the Orbiter | Launch 2 satellites to investigate geoglyphs | Increased Production or Energy in the chosen city |
| Beauty in the Eye of the Orbiter: Part II | Build an expedition at the marked site | Adds affinity Experience and bonus Science |
| Better Living through Chemistry | Construct a pharmalab | +1 Science or +1 Health from pharmalabs |
| Big Brother | Construct a surveillance web | Covert agents advance faster in rank or +10 City Hit Points from surveillance webs |
| Blood Bank | Construct a clinic | +15 City Hit Points or +1 Health |
| By Our Powers Combined | Construct a CEL cradle | +1 covert agent or +10% Food carried over after Growth in cities with CEL cradles |
| Civil Skies | Found (or capture) a city next to Floatstone | Improves the city's population and Energy or its Production and Science |
| Cultural Burden | Early game event; create an expedition on a nearby crash site and then drain Xenomass | Adds Harmony Experience, Purity, or Supremacy Experience |
| Engineering the Future | Construct a repair facility | +1 orbital coverage or +5% military Production for repair facilities |
| Escape Velocity | Construct a launch complex | +1 orbital coverage or +10% orbital Production from launch complexes |
| Familiar Exotics | Early game event | Adds Harmony Experience or Purity and Supremacy Experience |
| Familiar Exotics: Harmony Part II | Triggers after you choose the Harmony route in Part I | You receive Energy or bonus population |
| Familiar Exotics: Purity/Supremacy Part II | Allow the plant to spread in Part I, and construct a pharmalab when asked | Adds bonus Energy and Science and adds Purity Experience or Supremacy Experience |
| Filling the Void | Construct a field reactor | +5% Energy or +2 orbital coverage for field reactors |
| Food for Thought | Construct a civil creche | +5% Food or +10% worker speed from civil creches |
| For Your Eyes Only | Research Computing | Founds your spy program |
| Forged in Fire | Build a Firaxite Mine | +2 Production from Firaxite Mines or +4 Firaxite resources |
| Found an Outpost | Found your first outpost | +1 soldier (at the site of the new outpost) |
| Fresh Specimens | Kill 10 alien units | Awards bonus Culture |
| Fueling the Fire | Construct a Petroleum Well | +2 Production or +2 Culture from Petroleum Wells |
| Fueling the Future | Construct a xenofuel plant | Gain 1,000 Energy or +3 Energy and +2 Production from Xenomass Wells |
| Garden of Eden | Construct a gene garden | +3 Energy or +1 Health from gene gardens |
| Gifts from Home | Find 2 Resource Pods | Gain bonus Science |
| Growth Potential | Create a trade route | N/A |
| Hearts and Minds | Construct a feedsite hub | +1 spy or +10% worker speed |
| Home Grown | Construct a xenonursery | +450 Science or +5 Xenomass resources |
| Hostile Takeover | Destroy a rival station | N/A |
| How We Remember | Research Pioneering, build Old Earth relic | +1 Energy or +1 Culture for Old Earth relics |
| Leadfoot Soldier | Construct a Xeno Sanctuary in a specific location | Adds Harmony Experience and +5 Healing to all units |
| Miasma for the Soul | Construct a growlab | 450 Energy or +1 population in every city |
| Nature's Potential | Construct a Gaian Well | +2 Energy or +1 Production from Gaian Wells |
| No Reservations | Construct a Xeno Sanctuary | +2 Culture or +2 Food from Xeno Sanctuaries |
| Obstacles of the Past | Construct a cloning plant | 10% of Food carried over after Growth or +1 Health from cloning plants |
| Occupational Hazard | N/A | N/A |
| Occupational Hazard: Part II (Purity) | Destroy 2 alien nests | Adds Purity Experience and population |
| Occupational Hazard: Part II (Sup/Har) | Construct 2 alien preserves | Adds Harmony Experience or Supremacy Experience |
| Of Mites and Men | Construct a nanopasture | +10% Food or +10% Energy from nanopastures |
| Operative Extraction | Have a spy steal Science | N/A |
| Organic Growth | Construct a cytonursery | +5% military Production or +1 Production for cytonurseries |
| Point of No Return Null | Construct a neuralab | ??? Editme (broken) |
| Productive Progress | Construct an LEV plant | +2 Production or +2 Energy at LEV plants |
| Pure Advantage | Construct a bionics lab | Affinity Experience and Science |
| Quality or Quantity | Construct an alloy foundry | +2 Production from Titanium Mines or 4 Titanium resources |
| Reconstituted Regulation | Construct a biofactory | +1 Food or +1 Culture from biofactories |
| Redacted | Perform a covert operation of 4 Intrigue or higher | +1 spy and free Culper Lodge |
| Safe behind Walls | Construct an ultrasonic fence | +1 repel range or make convoys immune to aliens |
| Second Sight | Construct an optical surgery | +1 Visibility for military units or +2 Science from optical surgeries |
| Secret Ingredients | Construct a Soma distillery | +10% Health or +5% Culture from Soma distilleries |
| Secure Compounds | Build a quarry | N/A |
| Sky Mine | Purity event | Adds Purity Experience and either +1 Food from Work Barges or bonus Culture |
| Sky Mine: Part II | Build an expedition at the crater if you allowed the asteroid to fall | Adds Purity Experience and bonus Production in all your cities |
| Solid State Citizen | Early game event; build an expedition at a marked crash site, and then found an outpost | Adds Supremacy Experience or adds Purity Experience |
| Solid State Citizen: Harmony Branch | Timed event after turning away the augmented | Energy and Science or Harmony Experience and Energy |
| Special Delivery | Perform "Establish Network" and then "Dossier Delivered" | +1 covert agent! |
| Spymaster and Commander | Construct a command center | +15 City Strength or +1 spy from command centers |
| Startographer | Launch 1 deep space telescope | Adds Supremacy Experience and reveals coastlines |
| Station Charter | Event | Decide between two different stations to uncover |
| Steel Synapse | Build CEL cradles in 5 cities | Supremacy Experience and bonus Science |
| Strength in Numbers | Construct a molecular forge | +10% Production or +10% Science from molecular forges |
| Tastes like Cardboard | Construct a mass digester | +1 Production or +1 Food from mass digesters |
| The Creative Spark | Construct a thorium reactor | +2 Energy or +1 Production from thorium reactors |
| The Ghost in the Machine | Construct a node bank | +10% City Hit Points or +10% City Strength from node banks |
| The Heart of a Nation | Construct an organ printer | +10% City Health from organ printers or +10 to unit Healing |
| The Highest Heights | Construct a skycrane | +2 Production from Floatstone Quarries or +4 Floatstone resources from skycranes |
| The Meaning of Life | Construct a Progenitor garden | +10% Health or +5% Science from Progenitor gardens |
| The More You Know | Construct an institute | +5% Science from institutes or 1 free Technology |
| The Observable Universe | Construct an observatory | +2 City Strength or +2 naval unit Movement from observatories |
| The Power Within | Construct a borehole | +5% Production or +5% Energy from boreholes |
| The Scientific Method | Construct a laboratory | Explorers gain 1 expedition module or +1 Science from laboratories |
| The Stars Our Destination | Construct a neoplanetarium | +2 orbital coverage or +10% Production from neoplanetariums |
| The Think Tank | Construct a neuralab | +1 Health or +10% military Production from neuralabs |
| The Time Capsule | Construct a terra vault | +5% Culture or +5% Science from terra vaults |
| The Vital Frontier | Construct a vivarium | +1 Science or +1 Food from vivariums |
| Times of Plenty | Construct a trade depot | +1 Production or +1 Energy for trade depots |
| Too Much Gun | Construct a rocket battery | +5 City Strength or +1 City Orbital Strike Range from rocket batteries |
| Unnatural Selection | Construct a gene smelter | +2 Science or +1 Health from gene smelters |
| We can Rebuild Them | Construct a bionic lab | +1 Science or +1 Culture from bionic labs |
| We have the Power | Construct a mantle | +1 Science/Purity level or +1 Energy/Purity level |
| We have the Technology | Construct a hypercore | +1 Science/Supremacy level or +1 Culture/Supremacy level |
| What Goes Around | Construct a recycler | +10% worker speed or +1 Food from recyclers |
| When the Levees Broke | Construct a water refinery | +1 Food or free maintenance for water refineries |
| Worm Killing | Kill 1 Siege Worm | Receive bonus Science, Culture, and Energy |
| Written in Stone | Explore to find an ancient tomb; build an expedition there, and then send a military unit into the tomb | Grants massive affinity Experience and bonus Science |
| Zoology | Construct an alien preserve | +5 Healing for all units or +1 Science and Energy from alien preserves |

Affinities
# Overview

This chapter explains the Affinity system, one of the newest game concepts in *Civilization: Beyond Earth*. This controls a variety of bonuses that both your colony and its military forces receive. The more you master an Affinity, the easier it becomes to defend yourself and dominate your rivals.

There are three Affinities in this game: Harmony, Purity, and Supremacy. If you don't know a unit specifically, you can tell a great deal just by the color of the people or machines in question. White units are members of the early game; they do not have an Affinity yet. Blue-green units are Harmony-based. Red and beige units follow the path of Purity. Yellow and black units are devoted to Supremacy.

All colonies begin without any Affinity experience whatsoever. From there, they can grow in one or all three of the Affinities. Your colony's highest Affinity value is its dominant one. This starts to become significant around midgame, when you have an affinity at or above Level 6.

Research in most *Civilization* games is what determines the power of your Units; the more technology you have, the better your forces become as they train with increasingly improved weaponry. Things are slightly different here; Units receive tiers of Upgrades at specific Affinity levels. Some Units are locked at higher points in the technology web, but Upgrades are a huge aspect of gameplay. When an Upgrade is chosen, it is immediately applied to all units of that type--you will not have to upgrade individual units manually or pay any cost.

Though Affinity is tied to certain technologies, there are multiple ways to advance in this system. As such, you could be a technological powerhouse and still not have the most modern military force in the game. Things are a little more complicated than that.

Reaching a high Affinity level is, in some ways, even more important than mastering all available technologies. Not only is this important for your military, but it's also the way to unlock various end-game goals. Each Affinity has its own way to win the game. Everyone can try to achieve a Contact or Domination victory, but high Affinity values also unlock Transcendence, Promised Land, and Emancipation as victory conditions. The more paths to victory you understand, the more likely it is to achieve one of them. Getting to higher Affinity quickly substantially improves your ability to win the game, whether you're the strongest nation or not!

## GAINING AFFINITY EXPERIENCE

Gaining levels in an Affinity requires experience of that same category. To see how much experience is needed, highlight the Affinity levels in the upper-left corner of the screen when in-game. This also displays the various bonuses the player receives when specific Affinity levels are reached. A player can gain experience in all three Affinity categories, even after becoming dominant with one of them, and gain bonuses from each. However, becoming dominant in one Affinity reduces the amount of experience gained in the others.

There are three ways to gain experience and increase Affinity level. The most reliable and consistent is Research. Look through the technology web, and note the blue-green, red, and yellow symbols that are located on many leaf technologies. Those are Affinity experience! Completing those technologies gets you a certain amount of experience in the displayed Affinity category. Highlight the technology to see how much experience it will provide.

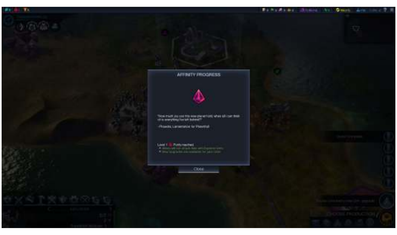
Another method for Affinity advancement is the Quest system. Some events appear occasionally throughout the game, providing Quests that should be followed to their conclusion. The choices you make for these special Quests are often along Affinity lines. Make choices that are aligned with a desired Affinity to gain experience in that category. These Quests have an icon with all three Affinity symbols. Prioritize these above all other quests, as they often take more time and require exploration. That's fine; it's worth your investment.

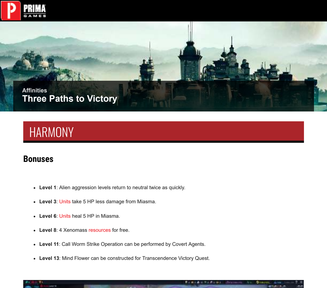
The third and final way to gain experience is from Expeditions. Your Explorers are vital to the colony's progress. They sometimes get random Resource Pods with small yields, but that's only the tip of the iceberg. Expeditions are the way to get the serious bonuses. These can provide a sum of Affinity experience or even a full Affinity level (if you're lucky), and they sometimes tie into the Quests previously mentioned.

## CHOOSING A DOMINANT PATH

You should often choose your intended Affinity very early in the game. The sooner you pick one, the easier it is to know which to follow during Quest choices. You also can hurry toward Technologies that give one kind of Affinity experience over the others.

It's fine to grab Affinity experience all over the board; the bonuses you get are really cool. Just make sure to have one Affinity in mind as your preferred type. Now, you'll learn more details about the upsides and downsides of the three Affinities so that you know what you're getting into.



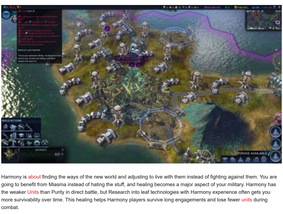


Affinities
# Three Paths to Victory

## HARMONY

### Bonuses

- **Level 1**: Alien aggression levels return to neutral twice as quickly.
- **Level 3**: Units take 5 HP less damage from Miasma.
- **Level 6**: Units heal 5 HP in Miasma.
- **Level 8**: 4 Xenomass resources for free.
- **Level 11**: Call Worm Strike Operation can be performed by Covert Agents.
- **Level 13**: Mind Flower can be constructed for Transcendence Victory Quest.



Harmony is about finding the ways of the new world and adjusting to live with them instead of fighting against them. You are going to benefit from Miasma instead of hating the stuff, and healing becomes a major aspect of your military. Harmony has the weaker Units than Purity in direct battle, but Research into leaf technologies with Harmony experience often gets you more survivability over time. This healing helps Harmony players survive long engagements and lose fewer units during combat.

This makes it important to fight defensively as a Harmony player. Lure opponents into Miasma, where you have greater advantages over them in the mid and late game. Your units eventually get major bonuses to Combat Strength when fighting in Miasma, and your enemies may be taking damage over time just for sitting in the goop.

### Core Tactics For Harmony

- Spread Miasma all over the world.
- Wait for enemy military forces to enter your territory, defeat them there where it's much easier, and then expand once adversaries are weaker.
- Be patient, and try to draw out warfare.

Defensive players are most likely to enjoy the Harmony line. The military units you get are somewhat harder to use than their Purity and Supremacy equivalents. Harmony gets much more interesting powers, but it takes time and practice to set them up correctly. You can push enemy units around, heal through kills, or have some of your units explode on death. Neat stuff!

Harmony is also very effective at getting large city populations. Their Biowell tile improvement provides Food and Health, making it a Farm that sustains both the city's growth and its bursting citizenry. This is invaluable when combined with buildings that have Specialist slots.

## PURITY

### Bonuses

- **Level 1**: Aliens will not attack tiles with Explorer Units.
- **Level 3**: +20% Strength and Ranged Strength when attacking or defending against aliens.
- **Level 6**: +2 Orbital Coverage in all Cities.
- **Level 8**: 4 Floatstone resources for free.
- **Level 11**: Dirty Bomb Operation can be performed by Covert Agents.
- **Level 13**: Exodus Gate can be constructed for Promised Land Victory Quest.

Purity focuses on maintaining what has made humanity great in the past. It's often at odds with the aliens and the ways of the new world. You're likely going to exterminate aliens, destroy their nests, and reduce the miasma to a wisp of what it once was. However, being friendly with Aliens is an option for any Affinity. Purity units have high Combat Strength, very strong firepower even when alone, and can go on the offensive without any trouble. Purity is a slightly easier affinity to play because of its self-reliant units and highly defensible cities.

Purity has both strong defensive and offensive units. Their Rangers become wickedly effective at defending cities in the midgame. They have fast raiding units with Combat Rovers that become very effective against cities, and there are multiple powerful ranged units in the late game that are hard to take down.

### Core Tactics For Purity

- Use your superior one-on-one units to by launching fast campaigns against weaker colonies.
- Avoid drawn-out battles against large groups of Supremacy units or entrenched Harmony players; win fast, or go home and wait for a good peace offering.
- Use early fighting against aliens and their nests to toughen your military with free Veterancy bonuses.

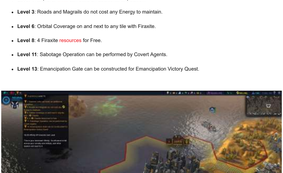
Aggressive players are likely to love Purity. They have a great tendency toward blitzkrieg warfare, and their units can be used to take land quickly against any opponent who doesn't prepare well ahead of time. Scout constantly to look at your neighbor's borders. This gives you information about their combat readiness, but that's not all: you also prevent your enemies from knowing when the attacking is imminent. Keep your units mobile, like they're always ready to go. Don't have them lean on people's borders, because that is diplomatically negative, but have a force close to each border so that no one knows when you're going to strike.

Defensive players will love the Dome tile improvement, which grants +10 City HP to whichever city is working the tile. Stacking several of these per city greatly increases their survivability against any Affinity. The Dome also grants Culture, making Purity a powerhouse for gaining Virtues.

## SUPREMACY

### Bonuses

- **Level 1**: Explorer units can build an additional Expedition.
- **Level 3**: Roads and Magnails do not cost any Energy to maintain.
- **Level 6**: Orbital Coverage on and next to any tile with Firaxite.
- **Level 8**: 4 Firaxite resources for Free.
- **Level 11**: Sabotage Operation can be performed by Covert Agents.
- **Level 13**: Emancipation Gate can be constructed for Emancipation Victory Quest.

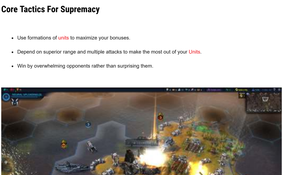


Supremacy isn't about the past or the present; Supremacy looks to the future for salvation. Its goal is to see humanity rise to new heights. To do that, Supremacy Units are made to work together. They're not always going to win in one-on-one battles against their opponents, but that's not their purpose. Supremacy is about combinations of troops. Ranks of melee go in the front, ranged units and artillery behind. With Supremacy, victory is all about the numbers game.

Almost all Supremacy units get bonuses for being near allies, sometimes even per ally. Commando raids aren't normally their thing. Instead, they gather a huge army, push into enemy territory, and blow away everything that stands against them. This is a slower process than Purity attacks, but it's even harder to fight against. Supremacy is thwarted only by persistent, unyielding defense. Multiple units, good chokepoints, and fortified defenders buy people time to stave off defeat.

### Core Tactics For Supremacy

- Use formations of units to maximize your bonuses.
- Depend on superior range and multiple attacks to make the most out of your Units.
- Win by overwhelming opponents rather than surprising them.



Supremacy favors persistent aggression. You can't usually surprise anyone because your military takes longer to put together. Formations are important, and you can't send people in by themselves. Thus, your warfare should be slow and almost civilized. Get your people into the area, declare war, approach each city, and then use your siege units to bring down the defenses. Then, take the city and repeat the process. Multiple fronts and raiding tactics are still viable with Supremacy, but they're not required in the same way. Even fast Supremacy units are made to work with the team rather than head off to unleash their own mini-campaigns.

The Node tile improvement is a great defensive feature, providing Supremacy players with extra healing at home, as well as much-needed Energy. Large armies have large upkeep, so the more Energy income that's available, the better.

Virtues
# Overview

This chapter discusses the Virtue system. Your nation builds Culture until it reaches certain thresholds; when that happens, you gain a new Virtue and must then build Culture to an even higher value before you're able to grab another one. This section explains how to specialize your colony using the Virtue system and how to get the most possible Virtues without sacrificing other aspects of your nation's development.

Culture is the key to getting Virtues. You can improve your colony's cultural output using domes and terrascapes (tile improvements), culture buildings (e.g., Old Earth relics and feedsite hubs), social development (a production option), or by looking for expedition sites and resource pods.

Larger societies require more Culture to advance to each stage of Virtue. The more Cities you acquire, the higher your Culture threshold becomes. That doesn't always mean that a small civilization is going to get more Virtues. Instead, it means that colonies must emphasize cultural development whether they're massive or tiny. Simply grabbing more Cities doesn't do much to help you advance in this system.

There are four branches of Virtues: Might, Prosperity, Knowledge, and Industry. All four of these are incredibly powerful, as they focus on core elements of gameplay. Though this chapter discusses each of them in detail, the short version is as follows: Might helps you conquer enemies and defend your territory, Prosperity aids in settling and expansion, Knowledge centers on the Culture and research of your nation, and Industry lets you acquire wealth and better infrastructure.

This system lets you devote Virtues from the top down in any category that you want. You must invest Virtues into higher areas before you're able to unlock access to items deeper within each branch. This lets you navigate from minor general bonuses to far more specific (and powerful) bonuses toward the end of each branch.

All branches are divided into three tiers of content. You start up top, eventually work your way to the middle, and then move to the lower tier of the branch. Players can mix and match to their hearts' content. If you want to put points into all four Virtue branches, you're free to do so. There are even rewards for spreading your points around. Heavy investment in a single branch unlocks branch-specific rewards. Distributed investment unlocks broad rewards that are based on investing points in a given tier.

These two types of rewards are called synergy bonuses. There are three synergy bonuses for each branch, and then six bonuses across the various tiers (three for Tier I, two for Tier II, and one for Tier III).

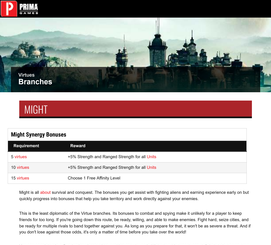
### Tier Synergy Bonuses

| Tier | Requirement | Reward |
|---|---|---|
| I | 6 Tier I Virtues | Choose 1 Free Virtue |
| I | 10 Tier I Virtues | 10% Energy and Production in the Capital |
| I | 15 Tier I Virtues | Choose 1 Free Technology |
| II | 8 Tier II Virtues | Choose 1 Free Virtue and Recruit 1 new Covert Agent |
| II | 12 Tier II Virtues | Choose 1 Free Affinity Level |
| III | 10 Tier III Virtues | +10% Growth, Production, Science, Culture, and Energy in every City |

## Tier I Bonus

Of all these perks, the first Tier I reward is the most accessible. It usually takes four or five Virtues to get everything that you want out of even a single branch in the first tier. Jumping into another tier to finish off that synergy reward is either free or almost free because the bonus Virtue pays for your investment in a secondary branch.

Synergy bonuses within each branch are given every five Virtues. Thus, you get a reward for putting five Virtues into any single branch, then another reward after 10 Virtues, and then another after 15 selections. These bonuses are specific to the branches in question, and it's about time you learned about them!



Virtues
# Branches

## MIGHT

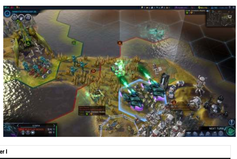
### Might Synergy Bonuses

| Requirement | Reward |
|---|---|
| 5 Virtues | +5% Strength and Ranged Strength for all Units |
| 10 Virtues | +5% Strength and Ranged Strength for all Units |
| 15 Virtues | Choose 1 Free Affinity Level |

Might is all about survival and conquest. The bonuses you get assist with fighting aliens and earning experience early on but quickly progress into bonuses that help you take territory and work directly against your enemies.

This is the least diplomatic of the Virtue branches. Its bonuses to combat and spying make it unlikely for a player to keep friends for too long. If you're going down this route, be ready, willing, and able to make enemies. Fight hard, seize cities, and be ready for multiple rivals to band together against you. As long as you prepare for that, it won't be as severe a threat. And if you don't love against those odds, it's only a matter of time before you take over the world!

You can certainly win a Domination victory without taking any virtues in Might, but this branch can definitely help you on your way. The ability to have your military win unit-for-unit against most enemies is a massive boon.



### Tier I

| Virtue Name | Bonus Unlocked |
|---|---|
| Adaptive Tactics | +100% Experience from combat |
| Liberation Army | After conquering an enemy Outpost, automatically found an Outpost of your own in its place |
| Military-Industrial Complex | +15% Production toward Military Units |
| Public Security | +0.25 Health for every Military Unit under your command |
| Survivalism | +25% Strength and Ranged Strength against alien life forms |

### Tier II

| Virtue Name | Bonus Unlocked |
|---|---|
| Adaptive Sciences | +20% Affinity earned from researching technologies |
| Army Engineering Corps | +1 Energy and Production from every Strategic Resource |
| Martial Meditations | Choose 1 Free Affinity Level |
| Scavenging | Earn 100% of an alien lifeform's strength as Science after killing it and 40 Science from destroying alien nests |
| Special Service | +40% Intrigue from Covert Operations |

### Tier III

| Virtue Name | Bonus Unlocked |
|---|---|
| Brutal Efficiency | +50% quantity from sources of Strategic Resources |
| Channeled Wrath | +10% Strength and Ranged Strength for all Units |
| Democratized Quartering | -50% maintenance for Units |
| Integrated Arms | +10% Production toward a Unit for each Upgrade it has |
| Joint Operations | +3 Orbital Coverage provided by Stations you trade with |

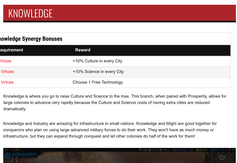
## PROSPERITY

### Prosperity Synergy Bonuses

| Requirement | Reward |
|---|---|
| 5 Virtues | +10% Growth in every City |
| 10 Virtues | +1 Health for every City |
| 15 Virtues | +50% Orbital Coverage radius from Cities |

Prosperity is the key to fast growth and massive empires. The bonuses to colony Health are higher here than anywhere else in the virtue system. This leads to unrivaled size and territory for a growing nation. This is not necessary if you are planning on slow or cautious expansion. However, it is necessary if you want to have controlled and sustained growth through peaceful or military means.

Pair Prosperity with Might for aggressive expansion, or pair it with either of the other branches for a more peaceful route. This is ideal if you have a large section of land that isn't contested, so you can settle that territory and develop it without having to carve through anyone else.



### Tier I

| Virtue Name | Bonus Unlocked |
|---|---|
| Colony Initiative | Gain a free Colonist Unit |
| Frugality | +10% Food retained after a City grows |
| Helping Hands | +15% build speed for Tile Improvements |
| Homesteading | +30% speed toward Outpost growth |
| Workforce Initiative | Gain a free Worker Unit |

### Tier II

| Virtue Name | Bonus Unlocked |
|---|---|
| Gift Economy | +3 Energy from your land- and sea-based Trade Routes to foreign Cities |
| Mind Over Matter | +7 Health |
| Pathfinders | Explorer Units can build 3 additional Expeditions |
| Pioneer Spirit | -25% Culture needed for border expansion |
| Settler Cares | +2 Population for newly founded Cities |

### Tier III

| Virtue Name | Bonus Unlocked |
|---|---|
| Eviscerating | +1 Food, Production, and Culture from every Terrascape |
| Eudaimonia | 25% less negative Health |
| Hands Never Idle | +2 Energy from any Population acting as a Specialist |
| Joy from Variety | +1 Health for each type of Basic Resource that is improved |
| Nature's Bounty | +1 Production from every Basic Resource |

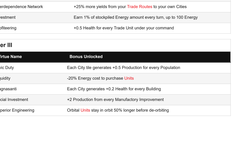
## KNOWLEDGE

### Knowledge Synergy Bonuses

| Requirement | Reward |
|---|---|
| 5 Virtues | +10% Culture in every City |
| 10 Virtues | +10% Science in every City |
| 15 Virtues | Choose 1 Free Technology |

Knowledge is where you go to raise Culture and Science to the max. This branch, when paired with Prosperity, allows for large colonies to advance very rapidly because the Culture and Science costs of having extra cities are reduced dramatically.

Knowledge and Industry are amazing for infrastructure in small nations. Knowledge and Might are good together for conquerors who plan on using large advanced military forces to do their work. They won't have as much money or infrastructure, but they can expand through conquest and let other colonies do half of the work for them!



### Tier I

| Virtue Name | Bonus Unlocked |
|---|---|
| Creative Class | Earn extra Culture equal to 30% of net positive Health |
| Field Research | Earn 20 Science from finishing Expeditions |
| Foresight | +10% Science when Healthy |
| Laboratory Apprenticeship | Each City tile generates +0.25 Science for every Population |
| Social Mores | Each City tile generates +0.25 Culture for every Population |

### Tier II

| Virtue Name | Bonus Unlocked |
|---|---|
| Applied Aesthetics | Earn extra Energy equal to 30% of the Culture you generate |
| Cohesive Values | -10% Culture needed for new Virtues |
| Community Medicine | +1 Health for every 6 Population in a City |
| Meritocracy | -40% Culture penalty from the number of Cities for new Virtues |
| Networked Databinks | -40% Science penalty from the number of Cities for new technologies |

### Tier III

| Virtue Name | Bonus Unlocked |
|---|---|
| Information Warfare | Recruit 1 new Covert Agent |
| Learning Centers | +2 Science from every Academy Improvement |
| Metaresearch Methods | Leaf technologies cost 15% less Science |
| Monomyth | +7 Culture for every Great Wonder |
| Technocitizens | Earn extra Science equal to 15% of the Culture you generate |

## INDUSTRY

### Industry Synergy Bonuses

| Requirement | Reward |
|---|---|
| 5 Virtues | +10% Energy in every City |
| 10 Virtues | +10% Production in every City |
| 15 Virtues | Earn 1% of stockpiled Energy amount every turn, up to 100 Energy |

Industry is where you get your energy and production power. Buildings come up quickly, and you have enough free "cash" to buy whatever you need whenever there is a shortfall. You can whip up a fast military when combined with Might, expand and have amazing cities with Prosperity, or stay smaller but powerful with Knowledge.

If you don't have much land, Industry can be a wonderful way to salvage your game. It's easier to get your buildings going, and that leaves more free time for warfare, trade routes, or whatever else you want to get done.

If you're hoping for a Contact victory, this is an amazing branch to master. The increased Production, wonder bonuses, and strong economy all work in sync with the objectives for Contact.



### Tier I

| Virtue Name | Bonus Unlocked |
|---|---|
| Central Planning | +5 Energy in the Capital |
| Commoditization | +1 Energy from every Basic Resource |
| Labor Logistics | +10% Production toward Buildings |
| Scalable Infrastructure | +15% Production toward Wonders |
| Standardized Architecture | +25% Production toward Buildings which have already been built in the Capital |

### Tier II

| Virtue Name | Bonus Unlocked |
|---|---|
| Alternative Markets | Trade Routes with Stations grant +6 Energy per Station tier |
| Entrepreneurial Spaceflight | +25% Production toward Orbital Units |
| Interdependence Network | +20% more yields from your Trade Routes to your own Cities |
| Investment | Earn 1% of stockpiled Energy amount every turn, up to 100 Energy |
| Profiteering | +0.5 Health for every Trade Unit under your command |

### Tier III

| Virtue Name | Bonus Unlocked |
|---|---|
| Civic Duty | Each City tile generates +0.5 Production for every Population |
| Liquidity | -20% Energy cost to purchase Units |
| Magnavesti | Each City generates +0.2 Health for every Building |
| Social Investment | +2 Production from every Manufactory Improvement |
| Superior Engineering | Orbital Units stay in orbit 50% longer before de-orbiting |

Trade Routes
# City Connections

## Trading And Maintaining Trade Routes

Trade routes are the lifeblood of your civilization, generating Energy that can be used to pay for anything you want. Without them, it's much harder to maintain a profitable economy, but that's not the only thing that they provide. Production, Food, Science, and even Culture are aided by the clever use of trade routes. You can do almost anything with these systems, and it won't cost much to set them up once you know what you're doing.

This chapter explains how to get the most out of trade routes, both internally and internationally.

## CITY CONNECTIONS

City connections aren't a requirement for trade routes, but they sure help your colony's economy. A City is considered to be connected to your Capital as long as it has a road or magrail that goes all the way to the Capital (passing through other Cities that you control is fine). Cities are also connected if they have access to the same body of water as your Capital and have a clear route scouted between their location and your Capital City.

### Long Road to Nowhere

Be very careful about dedicating yourself to roads that are too long to be useful. A stretch of road that goes more than seven or so tiles without hitting a city might be on the border between useful and not useful. Anything past the 10-tile line is really risky. You're devoting major time to create that road and paying for its upkeep during construction, but that's not the sole problem. You should look at your city and ask, "Why am I building this so far away from home?"

It's worth going an extra tile or two to found a city that is going to be in a great area: near a river, surrounded by good resources, etc. But going way too far from the edge of your territory is a good way to lose that city in your next war.

City connections earn Energy for your colony. This bonus Energy is a rather substantial amount once you connect several Cities. As your Cities grow, they provide more and more Energy per turn for being connected.

Though roads and magrails cost money to maintain, you usually make a profit off of your connections. Don't found Cities that are too far away from your colony, and you won't have to worry much about upkeep. Getting up to Supremacy Level 3 negates upkeep for roads and magrails, so that's another great way to improve the efficiency of your economy.

Even if you can't do much to make your road system cheap, it's worth having one! Movement between your Capital and allied Cities is vital for the defense of your colonies. Taking 15 turns to respond to a buildup of forces along a border is usually disastrous. You want to be able to shuffle units around at will so that each City doesn't have to stand alone. Redistribution of forces enables you to defend your colony with a fraction of the troops that you'd otherwise need to hold off a foe who is willing to scout well and come at you from multiple angles.

# Trade Routes

Actual trade routes are another matter altogether. These routes are formed when you connect two Cities, or a City and a Station, using a trade convoy or a trade vessel. First, you have to construct a Trade Depot inside a City. This allows the production of trade units, and enables the City to support up to two trade routes. Then produce the unit in question. Trade convoys go across land routes, and trade vessels use aquatic routes between their destinations.

Once you have the trade unit, select that unit, and use the Establish Trade Route command. You are given a list of all possible routes that are available to that unit. Places that you haven't discovered (or don't have a clear route to) won't be in that list. You need a clear route, without Maxima, to make a trade route. The path might be rather strange, but as long as there is a clear line, the route can be used.

Highlight the target of your trade route on the Establish Trade Route list to see the path that your unit is going to take. If that path goes through enemy territory, you might want to choose another trade route, even one that's less profitable. Your opponents are happy to seize your trade units because plundering them provides Energy, and because breaking your trade routes is a way to choke your economy.

Once you establish a route, your Units happily go back and forth between their city of origin and the destination. They're vulnerable to enemy attack or aliens, but you can use Ultrasonic Fences to save them from the latter. It's best that you always choose the Quest reward to let Ultrasonic Fences protect trade units. This is such a major boon to your colony that it's almost always the better option.

Trade routes vary in quality. Look at the differences between all of the routes before making any choices; once you dedicate to a trade route, your unit won't be available for starting a new path for some time, depending on game speed. War or the loss of a city can disrupt this, but usually, you must wait the entire duration of the route before reassigning your trade units.

## TYPES OF TRADE ROUTES

There are three types of trade routes that you can establish: international, internal, and Station routes. All of these have slightly different mechanics, and they're used at different stages of the game.

### International Trade Routes

- Provide Energy for your economy
- Add Science to help your Research
- Improve relations between two colonies

International routes connect a City in your colony to another player/AI's City. These provide Energy and Science to both players. The connecting player often gets a fair amount more yield than the receiving player, but both people always benefit from the deal.

International routes improve relations between the two sponsors. They won't guarantee peace, but they go a long way toward protecting friendships and alliances. Even when things are at their worst, you can use these routes to slow down or stave off declining relationships long enough to prepare yourself for war that is likely to come anyway (such as when two large colonies share a border with each other).

### Internal Trade Routes

- Add Production to both Cities inside your colony
- Add Food to both Cities inside your colony
- Develop Outposts at an amazing rate

Internal routes aren't going to help you diplomatically, but they're one of the best ways to get new cities off the ground. Use internal trade routes to a new City to give that location more Food and Production. You gain citizens faster and construct buildings very quickly compared with most starting Cities. Send multiple routes to that City to get that bonus as high as possible, and have routes leave from that City as well. This increases to the point where new Cities can gain population almost every turn and finish their buildings as if they were older, established Cities.

Internal routes can also be sent to a developing Outpost, before it even becomes a City. Each trade route used this way will increase the growth speed of the Outpost by 50%, causing it to acquire tiles faster until it finishes developing. As soon as it turns into a City, those trade units will be immediately available for reassignment back at their origin Cities. Send them to the fledgling City to boost its Food and Production!

### Station Trade Routes

- Add a variety of possible yields, depending on the type of Station you're connecting to
- Yields improve over time if you continue trading with the same Stations

Stations have the weirdest trade routes, as they don't offer a set type of yield. Instead, they might provide Culture, Science, Food, Energy, or Production. Take a look at all of the Stations that your people have discovered, and see which will be most beneficial to you. It is important to note that unlike international routes, trading with Stations provides the yield only to your own City, not to both the connecting City and the receiving Station.

The initial bonuses for each station seem fairly weak, compared to some of the international routes. This is because they need some investment to get to their peak. All Stations offer better deals to your people if you trade with them extensively over time. Send trade units to connect with them again and again to see their bonuses improve.

This guide devotes an entire chapter to Stations because they're a fairly complex entity in the game. Read more about them to find out how to exploit these independent entities.

## SETTING UP AND IMPROVING TRADE NETWORKS

There aren't many ways to get more trade routes out of each City. Each of your Cities starts with zero trade routes. They can receive routes from other Cities, but they can't launch any convoys or vessels of their own. As mentioned before, construct a Trade Depot as soon as you can to add two potential trade routes to that City.

Autoplants, once they get their Quest reward, can be tooled to provide a bonus route to their Cities. This gets your numbers up a bit higher. With an extra trade route, you can reap even more profit.

Another way to get more out of your trade routes is to establish many of them over water. Aquatic routes have a 50% higher yield than terrestrial ones. You won't usually have as many targets to trade with, but the few you have are going to get you tons of Energy, Science, Food, or Production, depending on the type of route in question. The downside is that aquatic routes are more dangerous; it's harder to keep your trade vessels safe from alien attacks.

### Setting Up Routes

A fun trick for setting up routes in a new City is to automatically purchase a trade depot in that area. Then, you have more developed Cities produce trade convoys or trade vessels and use the Change Origin City command to give them to your baby City. In just a few turns, you can have that location loaded with crane routes. Instead of waiting a long time to have them produce their own trade units. This is also much cheaper than using a purchase to get all of a new City's trade units.

For a quick list of your ideal trade targets, consider this:

- International routes get the most out of trade between massive Cities, like your rivals' Capitals.
- Internal trade routes give the best bonuses to your young Cities, which get an insanely high bonus to their Growth and Production (when you look at the percentage of change).
- Station trade routes are the best when you need something specific, like bonus Science or Culture, or if you don't want to aid your neighbors by trading with them.

Stations
Discovery

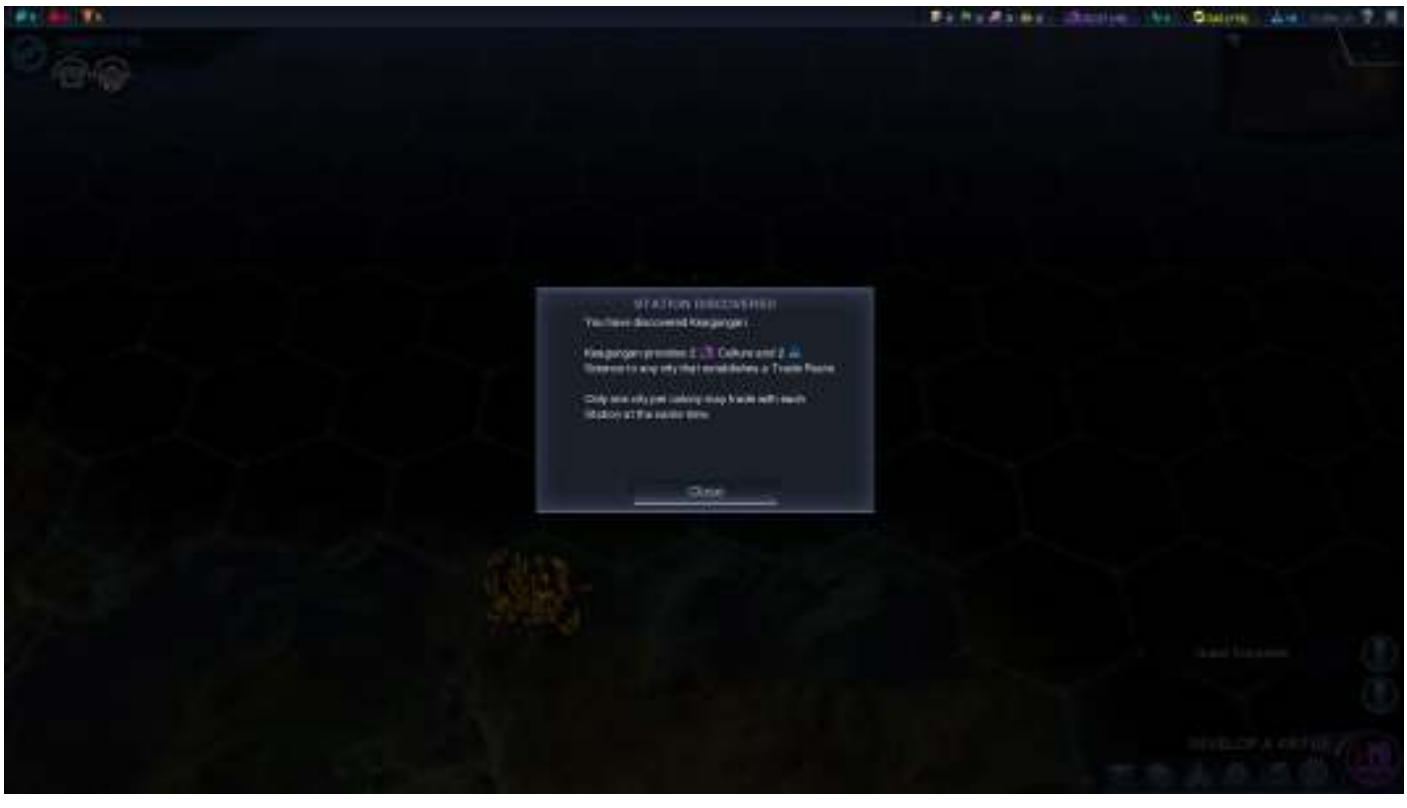
## The Purpose Of Stations

Stations are the neutral powers of the world in this game; mining outposts, laboratories, and other organizations that are independent from the colonies. They're viable partners for trade, and you potentially get some great yield bonuses from dealing with them. However, they do not own territory beyond their one tile and cannot produce Units or anything else a City is normally capable of. They also do not participate in diplomacy. This chapter covers the best use of Stations and explains what you can do to maximize their perks while also denying them to other players.

# DISCOVERY

Stations appear on the map over time. Some start near the very beginning of the game, while others randomly plop down later on. There are many types of Stations, and each has its own bonuses. A Station might trade Production, Food, Culture, Science, or Energy. Many Stations even trade a mix of these yields to anyone who sends convoys their way.

Once a Station appears, you get a notification about its name and the yield it provides, and the map zooms to its location. To make it available for trade, have one of your explorers or military units wander over to that area so that you have a clear explored path to that Station. If the path is clear of Miasma, the Station should appear on your list of potential routes when using the Establish Trade Route command on a trade unit.



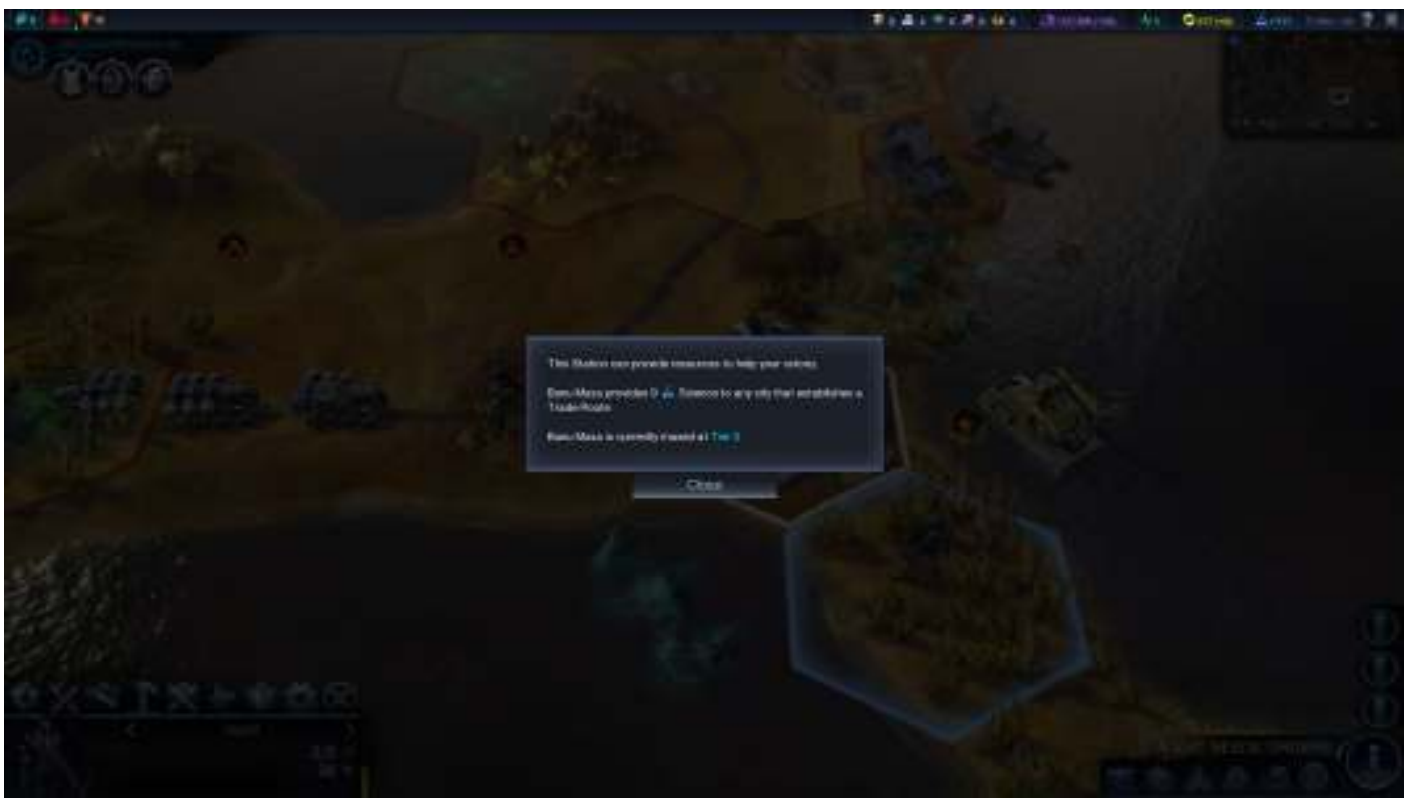
Now you're ready to go, so start trading!

Stations

# Trade and Improvement

The first trade convoy that you send to a Station isn't going to get you the best bonuses. You often do better by trading with a rival or sending convoys internally to raise the Food and Production of your own Cities. But this is a deceptive thing. Stations only get better over time if you invest in them. To do this, trade with them, and watch the bonuses improve as the Station thrives.

Every Station has three tiers of bonuses. Each time anyone completes a route with a particular Station, it will rise to a higher tier and start giving you more yield.



If there are yields that you badly need, it's certainly worth your time to send convoys to a Station that has them. By the time they fully develop, you're going to get way more resources than you normally would. This is especially true with Culture, which you cannot trade for with any other City.

Stations

# The Problems with Stations

Stations have one massive downside, and that's that they take up land. When they're close to your colony, this becomes a somewhat annoying problem because you cannot settle cities near them. Even though they physically do not take up more than one tile, your colonists must still obey the normal three-tile restriction before settling down just like with Cities. That's very troublesome if there is a nice plot of land anywhere near a Station.

Luckily, problems have solutions. You can destroy Stations with your military forces. They're way easier to trash than a major city, but they still take a few hits to bring down. They deal counterattack damage in melee, but they don't have ranged attacks. Use a melee Trooper and some ranged support to splash the Station and knock it out of your way.

**Upsides**: Destroying the Station frees that territory for settlements, and you get a yield bonus from taking the Station itself. In addition to that, a derelict settlement artifact is left behind. Bring an Explorer along to exploit that before anyone else can. It's a pretty good deal for the destroying party.

**Neutral points**: Stations are not allied with each other. You can destroy as many or as few as you like, and the other Stations won't care.

**Downsides**: Any colony that was trading with that Station isn't going to be too happy with you for taking out their trading partner. Avoid attacking Stations that are far away from your territory, unless you are willing to upset your rivals.

Stations
# Protection and Denial

If you find a Station that you really like, consider deploying a small military force there to protect the base from aliens and rival military forces. Stations do have a habit of getting destroyed over time, especially after you reach the midgame. Undefended stations aren't always going to last, unless you watch their backs. There aren't any rewards for doing this, but those military Units can still be called away if you need them for defense or a brewing war campaign.

By the same token, you should send a group of marauders to raid Stations near your active foes. Look for enemy trade units, and go after them aggressively to get bonus Energy and deny trade to your opponent.

Stations
# Station Withdrawal

Stations that don't receive trade partners in an area are eventually going to withdraw. They'll launch themselves off world, and other Stations are likely to take their place (in a new location) sometime soon. This can happen when the Station is at any tier, so if you have invested time into ranking up a Station, keep trading with it!

## Station List

| Station Name | Yield Provided |
|---|---|
| Adept Blue | 2 Food, 2 Science |
| Banu Musa | 4 Science |
| Camp Cascade | 2 Food, 2 Energy |
| Church of Dawn's Light | 1 Food, 3 Culture |
| Far Base One | 2 Science, 2 Energy |
| Fort Barca | 2 Production, 2 Energy |
| Golden Bell Temple | 1 Food, 2 Culture, 1 Energy |
| Hekima | 3 Food, 1 Culture |
| Jinsoku Labs | 2 Science, 2 Production |
| Keagungan | 2 Culture, 2 Science |
| Lalibela | 4 Culture |
| New Babylon | 2 Culture, 2 Energy |
| Omoikane | 4 Food |
| Palatine | 4 Culture |
| Red Sun | 4 Energy |
| Shackleton | 1 Culture, 2 Science, 1 Production |
| Stet Mining | 4 Production |

Covert Operations
# Gaining Access to Spies

Not far into the technology web, you gain access to Computing, and, thus, the Spy Agency. Once building that is completed, you access an entirely different mechanic of the game: covert operations. Your Agents let you harvest free Energy and Science from your rivals, grab extra Units, attack enemy Cities, or even gain control of another person's City.

This chapter tells you how to recruit and use Agents. Become a master of covert operations, and take your play to an even higher level.

## GAINING ACCESS TO AGENTS

### Unlocking Agents (Quicklist)

- Research Computing
- Construct the Spy Agency building
- Use the Covert Operations screen to assign your Agents

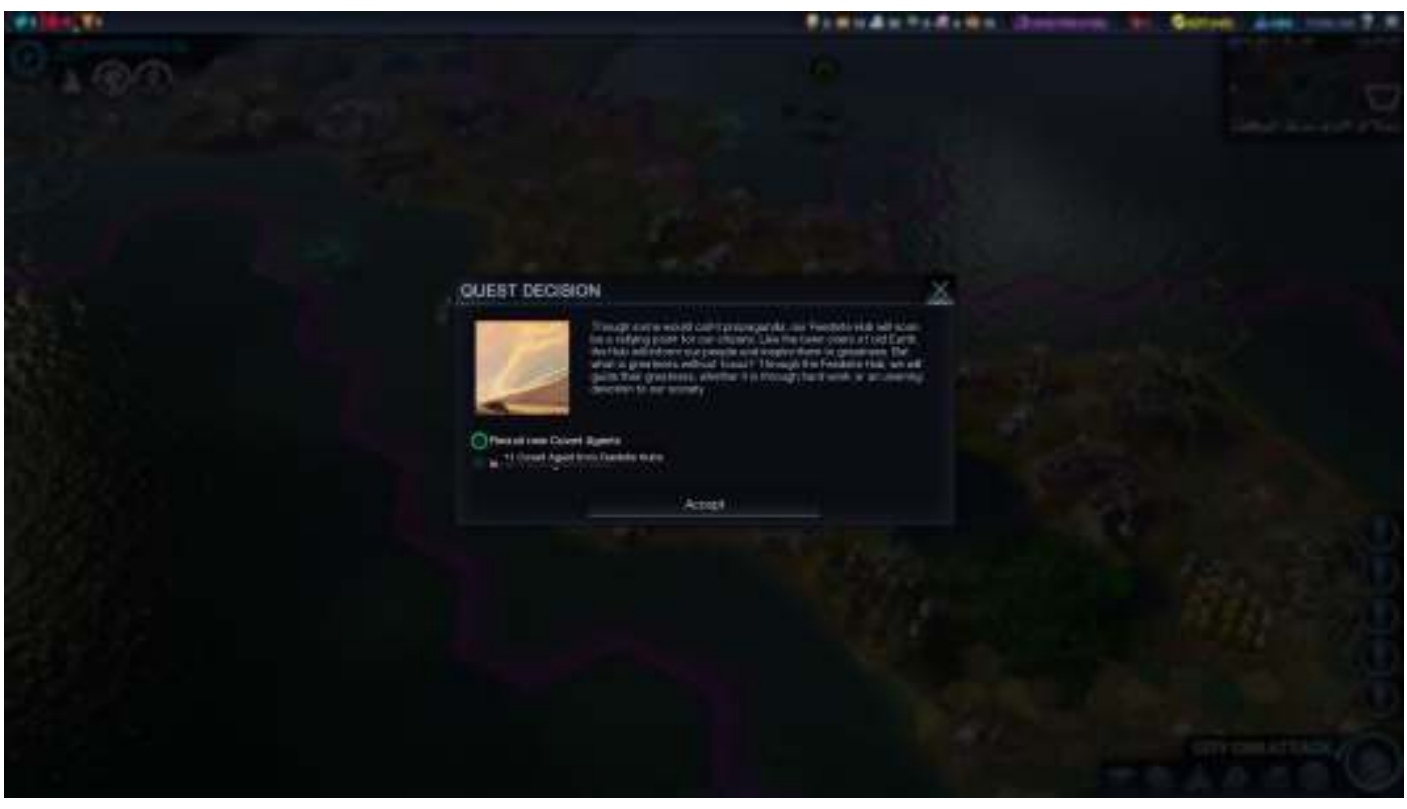
Computing is on the first circle in the tech web, but it's more expensive than the other choices in its tier and requires at least 1 other tech to reach it. Don't grab this immediately unless you really know what you're doing. It's better to collect a few vital Research items so that your cities have something to construct while you build up toward Computing.

Once you're ready, research Computing, and have one of your production Cities build the Spy Agency. As soon as this is complete, you get your first three Agents. All three start out as Recruits, the lowest of three skill levels. You must then figure out how to distribute your people. This chapter explains what you can do with them a bit farther along.

You eventually get access to even more Agents. These are given as Quest rewards as you progress through the game.

### Ways To Get Extra Agents Or Improve Their Actions

- Complete the Feedsite Hub Quest "Hearts and Minds" (option for +1 Covert Agent)
- Complete the Covert Ops Quest "Special Delivery" by establishing a network (option for +1 Covert Agent)
- Complete the CEL Cradle Quest "By Our Powers Combined" (option for +1 Covert Agent)
- **Take Information Warfare**: Tier III Knowledge Virtue (+1 Covert Agent)
- Complete the Surveillance Web Quest "Big Brother" (option to have Covert Agents advance faster in rank)
- **Take Special Service**: Tier II Might Virtue (+40% Intrigue from Covert Operations)
- Complete the Covert Ops Quest "//Redacted//" by performing a high-level operation (all Agents automatically become Special Agents)
- Receive the Tier II Virtue synergy bonus (+1 Covert Agent)




Agents can be killed while on assignment, but the number of slots that you've unlocked remains consistent. Slain agents are replaced over time, so you always return to your maximum number of Agents eventually.

There are three types of locations for your covert agents. You can send them to one of your Cities (counterintelligence), to a rival's City (on assignment), or leave them in their Headquarters. There are advantages to each.

Covert Operations

# National Security Projects

Agents left in your Headquarters help out with your National Security Project. This is a global bonus that modestly helps all of your Cities or agents. There are several options for these Projects, and they get the full bonus for every agent you leave in Headquarters. Therefore, you can stack several of them for a higher boost. Change the Project whenever you wish, but know that this causes a delay for several turns before you start getting the new bonus. During that in-between period, you don't receive any benefits from having people at your Headquarters.

## National Security Projects

**Homeland Security** +1% City Strength and City Hit Points for each Agent at Headquarters

**Research and Development** +1% Production for Wonders for each Agent at Headquarters

**Propaganda** +2% Health for each Agent at Headquarters

**Operations Support** Lowers the risk to Covert Agents doing Operations for each Agent in Headquarters

**Operations Reconnaissance** Increases the chance of Operation success for each Agent in Headquarters

All of these bonuses are fairly minor, so it's not especially lucrative to have many of your Agents stay at their Headquarters. That said, there is no risk or downside to leaving people there (except for the opportunity cost from avoiding Covert Operations), and in the right circumstance, such as a high-risk Operation or an important Wonder rush, the Project can be very helpful.

Covert Operations
# Counterintelligence

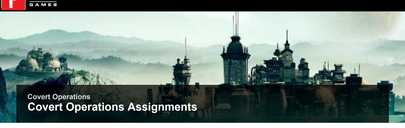
Cities become more and more vulnerable to espionage depending on their Intrigue level. The more Covert Operations that are sent against a city, the higher that area's Intrigue becomes. This increases the chance of success for additional attacks, and it also allows even more frightening missions to be attempted. Low Intrigue doesn't have any potential downsides for the city or its player; the Operations that are allowable at Intrigue Levels 1-3 have no deleterious effects for the City or player that they're unleashed against. It's at Intrigue Levels 4 and 5 that things go from annoying to scary.

To protect yourself from this threat, send your Agents to your own Cities. Agents placed on counterintelligence raise the chance of catching enemy Agents who are operating in that City, and your Agents also improve the rate that your City returns to a lower Intrigue level.

Use the Assignment screen to quickly look at all of your Cities, and send Agents to the Cities that have worrisome levels of Intrigue. You can also see the Intrigue level of a City in the City Manager. Open the City Manager and look at the row of five diamonds that is underneath the Border Growth indicator. The more diamonds that fill, the more Intrigue that city has. Beware!

Another way to reduce the effects of Intrigue is to construct Surveillance Webs in key Cities that are under frequent attack. These defensive buildings take the threat of serious covert attacks entirely off the table for the City in question, capping the City's Intrigue level at 3.

Counterintelligence has no negative consequences diplomatically. In fact, you can even score a few brownie points with other colonies. If you catch and kill their spies and then choose to forgive the transgressor, you gain a mild bonus with that sponsor in the future. That's pretty cool for doing something that helps you defensively anyway.





# Covert Operations Assignments

Place your Agents on assignment by sending them to an enemy City from the Covert Operations screen. Avoid assigning anyone against colonies that you need to keep friendly; you're always going to be taking a risk when you launch Operations against your opponents. It's best to be aware of this and to work against people who are already enemies or other dangerous opponents.

Give your Agents a few turns to travel to their new location, and then give them Operations to attempt against the target City.

### Covert Operations

| Assignment | Difficulty | Requirements | Effect |
|---|---|---|---|
| Establish Network | Very easy | None | Gather information about the city, the network remains until the Agent leaves the city or is killed; very low risk, great when assessing territory for attack. |
| Siphon Energy | Easy | None | Steals Energy from the City; this does not actually reduce the reserves in your rival's stockpile |
| Steal Science | Easy | 1 Intrigue | Steals Science from the City; this does not actually reduce your rival's Science output |
| Steal Technology | Moderate | 2 Intrigue | Steal a random technology |
| Recruit Defectors | Moderate | 3 Intrigue | Recruit a random military unit which will be placed near your Capital |
| Hack Satellites | Moderate | 4 Intrigue | De-orbit satellites within 5 hexes of the City |
| Coup D'etat | Moderate | 5 Intrigue | Claim control of the City for yourself |
| Dirty Bomb | Hard | 5 Intrigue, 11 Purity | Detonate a nuclear device in the city, reducing the City's population by half |
| Call Worm Strike | Hard | 5 Intrigue, 11 Harmony | Activate a harmonic device that attracts Siege Worms to a City (Chomp!) |
| Sabotage | Hard | 5 Intrigue, 11 Supremacy | Pillage all improvements within 3 tiles of the City |

The higher the difficulty, the better the chance that your Agent won't be able to complete the assignment. However, there are different tiers of failure. Success is rather direct; you get what you wanted out of the Operation. Failure is a sliding scale, where the penalties might be anything from minor to severe.

## Operation Outcomes

- **Undetected**: The defending player is not notified that anything has happened (whew!).
- **Detected**: The defending player is notified that a Covert Operation took place, but not told who perpetrated it.
- **Identified**: The defending player is notified that a Covert Operation took place and told who perpetrated it. The Agent survives, but you face diplomatic complications.
- **Killed**: The defending player is notified that a Covert Operation took place and told who perpetrated it; your Agent is killed, and you face diplomatic complications.

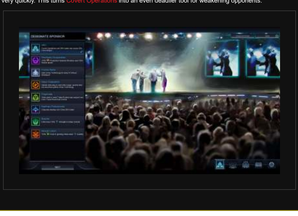
To maximize your chance of success and to avoid diplomatic issues, only send your more experienced Agents to do dangerous tasks. Have people "train" by working on establishing networks and stealing Energy and Science. These tasks aren't as difficult or as dangerous, so you can get your Agents to higher ranks somewhat safely.

When attempting really tough Operations, have your best Agent go to the target City, and have other Agents return to Headquarters while using Operations Reconnaissance as your National Security Project. That gives you the best chance to succeed in your endeavor.

Spies start as Recruits, level into Agents, and then become Special Agents. Higher-tier Agents not only succeed more often, but they also obtain better results. They'll gain more information when establishing networks, steal more Science and Energy for your colony, and look suave while doing it all. The difference between spy ranks is very substantial. Secret Agents, for example, steal roughly triple the amount that Recruits gain.

## ARC: Was There Ever Any Doubt?

It almost goes without saying that ARC is the best sponsor for anyone who wants to devote major resources to spying on their enemies. The ARC bonus lets you finish missions faster and build Intrigue very quickly. This turns Covert Operations into an even deadlier tool for weakening opponents.




# SAFE SPYING

Figure out a style of spying that works best for your colony. It's easy to sit back and defend the entire game because that's safe. It's simple. But, it's also a massive waste of your potential. Careful spying gets you a huge boost to your yields and doesn't have to tick off the entire world. There are ways to avoid consequences while spying.

First, try targeting just one rival. If you spy against everyone and have a string of failures, you might get into a rather ugly war. If you're not ready to take on the world, pick your worst enemy, and send all of your Agents into their Cities. Even if they fail, you aren't getting into any new trouble because things were already sour with that rival.

Another option is to stay modest with your goals. Stealing Energy and Science isn't going to backfire too often. Don't try to reach beyond these easy tasks, and enjoy a long game of free income.

# TACTICAL OBSERVATION

Stealing is all well and good, but Agents can also help you win wars. If you're looking for a weak spot in your opponent's border, go beyond scouting. Send Agents into border Cities, and establish networks there. Use this to look into enemy troop deployments, the lay of the land, and the purpose of your enemy's city. What are they doing there? Can the city be approached easily from a side that you couldn't see before?

Establishing open borders serves a similar function, but that can be costly and is hard to set up with nations that you're planning to attack. Why pay for your scouts to walk through when your Agents can travel free of charge? Hey, it's only taxpayer money, right?

# COVERT DOMINATION

Use Coups to take out enemy Capitals if they're foolish enough not to protect their best Cities. It won't matter if you can't keep the Capital beyond those early turns; the point is to ruin another person's chance at a Domination victory. This is nice if you're trying to win via Domination, or if you're afraid that another player is going to try to take over the world. Take that opportunity away, and you might force them into trying a more peaceful route. Even if they regain their City, you've succeeded in seriously hindering their progress for quite some time.

Single Player
# Worker Development

Once you've read the rest of this guide, you're going to have an extremely good sense of what everything does. You've researched buildings, wonders, Technology, units, concepts, and pretty much anything that can come up during play. So what's left to talk about?

The answer is thinking about major strategies and tricks that bring these ideas together. Don't focus on individual elements of the game and hope that they lead you toward victory. Instead, plan to use as many combined ideas as possible to give your nation many advantages. The more goodies you get, the better your chance for winning the game. It's time to pull it all together!

## WORKER DEVELOPMENT

This is a tried and true aspect of *Civilization*, but it bears repeating: use your workers! Cities that aren't developed have a huge power gap compared with cities that are surrounded by a number of improved tiles. Even the weaker early-game improvements add at least one resource point for every tile that gets improved and worked. That adds up to quite a few points per turn of various goodies even by the midgame, and if you hold on to your cities, you're going to have potentially a couple hundred more turns getting those resources.

Don't wait long before getting a worker going. As general pacing, try to have your capital get an improved tile for every point of population it has (at least until you start getting so large that specialists are available and viable).

Also, make sure that almost all of your cities get their own worker. Those workers don't have to be stationed near the city at all times. There are often periods where one city is developed well enough and another needs more help. It's fine to shift around your work force, in the same way that it's smart to shift around your military to bolster areas that are under attack.

Have your workers construct roads over to outposts before they even become cities. You want city connections to start yielding Energy as soon as possible. This really helps to keep your nation profitable.

Also, try not to wait until a city has three or four residents before improving their tiles. Either buy a worker at that location, or build a worker at a larger city and send him or her over as the outpost is grabbing territory. Do not train workers at your new city! This is a major waste of the city's early Production time. Workers need to work on buildings to improve their Growth and Industry. You should train units elsewhere, at a location with high Production, and send things over to the fledging city. This is true for garrison units, workers, and trade units, as well!

You don't even need to wait for an outpost to become a city to start working its tiles. As soon as the territory expands, your workers can get started. That new city might begin its life with one or two improved tiles all ready to go. Quite nice!

Single Player

# Founding Cities

Don't settle your cities willy-nilly; that only leads to underdevelopment. Put everything too close together, and your cities compete with each other for tiles. Space them too far apart, and you're going to languish with expensive roads, longer travel times, and more danger from aliens and raiders. You really want your borders to expand homogenously; gaps in your territory, even small ones, are going to have rival units wandering around. They won't even need open border agreements, and they can spy on you, look for weak points, etc.

## Traits For An Ideal City Location

- Select locations that have basic or strategic resources (both of which are very important).
- Use rivers to increase Energy output.
- Settle on the coast for expanded trade opportunities because aquatic trade routes have higher yields.
- Areas near mountains and canyons are harder to siege because of their limited passable tiles.
- Hills provide defensive bonuses for your city.
- Avoid too many tiles with tundra, desert, or even marshes because these have lower yields and higher development issues.
- Locations that are five or six tiles from your nearest city are in the sweet spot between being too far to support and too close for comfort.

When sending out your colonists, be very cautious. Have a military unit move with them, and try to avoid scouting with this pair. Going into unknown territory can get you surrounded by aliens, ambushed by raiders, or cause wasted time because you discover that the terrain is totally crummy for settling. You won't normally get attacked by the computer at this stage, but this habit will get you slammed in multiplayer games. Early game raiding is entirely possible and effective, so watch out!

Single Player

# Trade Routes for Internal or External Power

You've already learned how much you can get out of trade routes, but it's still worth focusing on one last time. Trade routes are one of your most impressive tools for gaining resources, building new cities, and making friends. Rival nations are more reluctant to attack you if you have a trade route with them. Use this to make friends, and then wait for your rivals to attack each other instead. The more fighting the computer does against itself, the better off you are. You can join in to squish someone else and take their land, or simply sit back and let the other nations exhaust each other. Win-win.

Young cities need internal trade routes the most. Sending convoys to those cities (and out from them) is the best way to get free Production and Food for cities that have little of their own. You can end up seeing population increases every couple of turns and spit out buildings almost as frequently. For a new city, that is crazy speed.

When outposts are close to becoming cities, it's worth holding off on your trade convoys so that they're ready for the new city as soon as it hits population 1. As convoys naturally end their trade routes, have a few sit for a turn or two when you're that close to gaining a new city. Then, instantly initiate their trade routes when the city spawns. To have a bit of fun, look at the Food and Production of the city before you do this and then again afterward. Can you reach 10 times the Food and Production numbers on the first turn of that city? You sure might.

As your cities reach higher populations and gain their own substantial Production values, you start needing those routes a bit less. They're still wonderful, but you can afford to devote more trade routes to external sources. The Science and Energy you get from this is wild, especially in maps with well-developed coastlines. Naval trade between large cities is awesome for Science.

Single Player

# Use Those Orbitals

It's easy to lose track of your orbital layer and only pop in when you really need something. "This miasma is annoying me. Oh, I can build a Repulsor for that." Sure, that's fine and all, but you're not taking enough advantage of orbitals if you play that way. You really should devote one of your secondary cities toward orbital creation once you get a bit further into the game and have better Technology. The bonuses to your yields from most orbitals are nifty, and not all of the orbitals even have strategic resource requirements.

Throw out orbitals as often as you can. Defend your borders when enemies start to gather. Don't wait for war. Deploy satellites as soon as you see a force building. It's your friendly way of saying, "I see you, and your very flammable army."

Because orbitals haven't been a part of *Civilization* before now, old veterans are going to be some of the worst neglectors when it comes to these units. Force yourself to play with them, and you won't regret it once the habit forms. These little toys are game changers if you know what you're doing. Big bonuses are just a few turns of work away.

Single Player

# Diplomacy Lets You Pace Your Conquests

Even warmongers need diplomacy. You can't take on the entire world at the same time until you have a huge military. That's not possible in the early turns of the game. You must keep at least a few nations relaxed while their neighbors get crushed underfoot.

Use trade routes, cooperation agreements, and mutual wars to help people think that you're a nice nation. It doesn't have to be accurate, and you won't have to keep up any pretenses forever. You just need to buy time as you get stronger and stronger.

Don't be the one to start wars in the early game. Instead, wait until the computer comes to you with a request to join them in an attack on a nation that isn't far from your border. This raises your diplomatic rating with the allied nation, and it keeps you from looking as bad to the community at large. Any other friendly nations with the attacker will have a better rating because of the "friend of my friend is my friend" style of diplomacy.

During those wars, let your buddy breach the enemy borders first if possible. This means that they'll hit the hardest defenses. Once that starts happening, send your military in, and try to scoop up the maximum amount of territory. Be really pushy about getting capital cities this way, as they're often great prizes due to long periods of tile improvements and Growth.

When choosing whom to befriend, try to think about affinities. Nations with the same affinity make better friends because it's easier to stay on their good side. If you haven't gotten far enough into the game to tell your rivals' affinity, see how they've reacted to your stance on aliens, at least. Go with people who agree on your alien activities because they are also more likely to stay on your good side.

Single Player

# Watch Out for Unit Maintenance

The Military Overview and your Energy reading at the top of the screen conceal the upkeep for your units. Unit maintenance is very low if you have a small standing army. Your Headquarters provides a base amount of supply, and then your cities and population add more to it. As long as your units don't demand more supply than you have, maintenance stays very low. Once you have more units than you can supply, the Energy cost of your force rises substantially.

Stay with a powerful but small defensive force when you need to save money and don't have a rugged economy to back things up. Once you start to have substantial income from trade, generators, and economic buildings, you can afford to field a larger military without gutting your economy.

Note that you must still maintain non-military units. Explorers, workers, and even trade units count toward your supply limit. Everything has a cost, right?

Single Player

# Aliens: Poking the Hornet's Nest

Alien aggression is a global affair, at least to an extent. You can tick off specific aliens by getting close to their nests, but otherwise, the level of alien aggression is something that affects all nations. If one person goes after aliens too violently, all aliens are going to respond. This can be useful to you in specific circumstances.

If you have a good military and other people are lacking in that area, you can use the aliens to do some of your dirty work. Attack the aliens until their icons turn orange (and eventually red), and watch your borders carefully. Fight off the aliens that come calling, and know that your rivals are going to have the same problems with them. Because you have a stronger military, this is less of a threat to your people and more of a threat to your opponents.

Note that you won't make friends with more than half of the nations when you do this. It's more of a warmonger's strategy than something everyone should try. Nations that are trying to live in peace with the aliens are going to get annoyed. Don't make promises not to attack the aliens, or they'll get even angrier when you keep doing it.

Now, it's unlikely that the aliens are going to kill your opponents outright. That's not the point. Instead, you're hoping to force others to defend what they have, put more Production into defense, and delay their development in other areas. If not, they'll lose outposts and scouting troops far more frequently.

Single Player

# Expeditions are Amazing

Veteran *Civilization* players might be used to going after Resource Pods because they feel like abandoned villages. You step on them and get a reward. But in this game, expeditions are the real fruit of the land. The rewards from these sites are way more than anything you're ever going to get from the Resource Pods (which primarily have Culture, Science, Energy, or a minor orbital if you're extremely lucky). Expedition sites have the potential for major Research progress, extra population, affinity Experience, quest rewards, free units, and more.

This is big stuff.

You should pursue expeditions as assertively as possible throughout the game, even taking them from territory near your neighbors if you're willing to take a minor diplomatic hit. Heck, if there is only a single site in that area, take it, and then promise to stop doing expeditions near that neighbor. Doing so actually helps your diplomatic ties with them in the long run, if you stick to your promise!

Early on, have your explorers run through the world, grabbing Resource Pods and looking for future expedition sites. Sites that you uncover outside of miasma should be grabbed immediately. Return to your city afterward to stock back up on the supplies your explorers need for additional expeditions.

Resources inside miasma are tougher. They often take 10 turns to uncover, and your explorer might die from the miasma before that happens. To counter this, look for upgrades that hasten improvement times. Helping Hands (a Prosperity virtue) is great for this. It allows explorers to get their expeditions done inside miasma without dying. They'll take tons of damage, but it's worthwhile.

Every time a station is destroyed, an orbital falls, or an alien nest is cleared, you get additional expedition sites. Scout for these throughout the game, and don't retire your explorers. Even when there isn't anything clear to go after, have them stay inside your borders and Fortify. Wait for a glimpse of a site, and wake them up to return to duty.

As you get deeper into the game and can spare some military forces, create a Rover to accompany your explorer. Rovers can actually keep up with explorers or pass them on open ground. That makes them great escorts, with enough firepower to hold off small attacks by aliens or other nations.

In aquatic maps, you should consider quest or virtue upgrades that give explorers more expeditions per trip. This is only decent when you have roads and easy access to everything. Once you must cross oceans just to explore, it becomes fairly costly to return to a city. Having more expedition modules can mean the difference between getting one expedition or several!

Single Player

# Quests Are Bigger Than You Think

Quests aren't just there to fill out building bonuses and show you roughly what to do in the game. They are a vital way to customize your nation, but that is only the surface. Get used to the affinity quests during your first few times in the game. These are one of the strongest ways to make yourself a powerful military force without spending any major Production. Affinity quests have multiple steps and don't give their rewards out until you've accomplished everything in the chain. However, the final rewards are so major that they shift the balance of power in the world.

Always hunt aggressively to get the rewards for the Familiar Exotics, Cultural Burden, Solid State Citizen, and any of the exploration quests (for the Elemental Cave and such). These quests get you enough affinity Experience to upgrade all or most of your troops because you gain a few affinity levels at once. You won't get that from scientific Research.

Look at your Quests and Victories screen frequently to see what you can do. A few turns to train an extra explorer and a military escort can get you way more than any single wonder or regular building ever could.

Single Player

# Always Have a Backup

Don't assume that the way you're playing will take you all the way through the game. Domination players can lose their capitals, even if their military is amazing. Stuff happens. You might also take too long to finish the game with other methods, if a rival gets ahead of you in their construction or affinity Experience.

Be flexible! Spartan Kel once tried to explain the importance of this mindset, and it's a lesson that you should always remember. Don't be too stiff in your approach to a situation. Look for multiple means of success, and be ready to shift your strategy if an opportunity presents itself.

In game terms, this means that you should watch the world develop around you. If targets are weak and vulnerable, a military path is going to earn you major rewards, even if you weren't planning on pursuing Domination. On the other hand, poor terrain, good enemy alliances, and a few unlucky players might give you a horrible position for continuing an aggressive expansion. Consider alternate plans! Maybe going on the defensive and using a Promised Land approach would be easier than taking everyone else out.

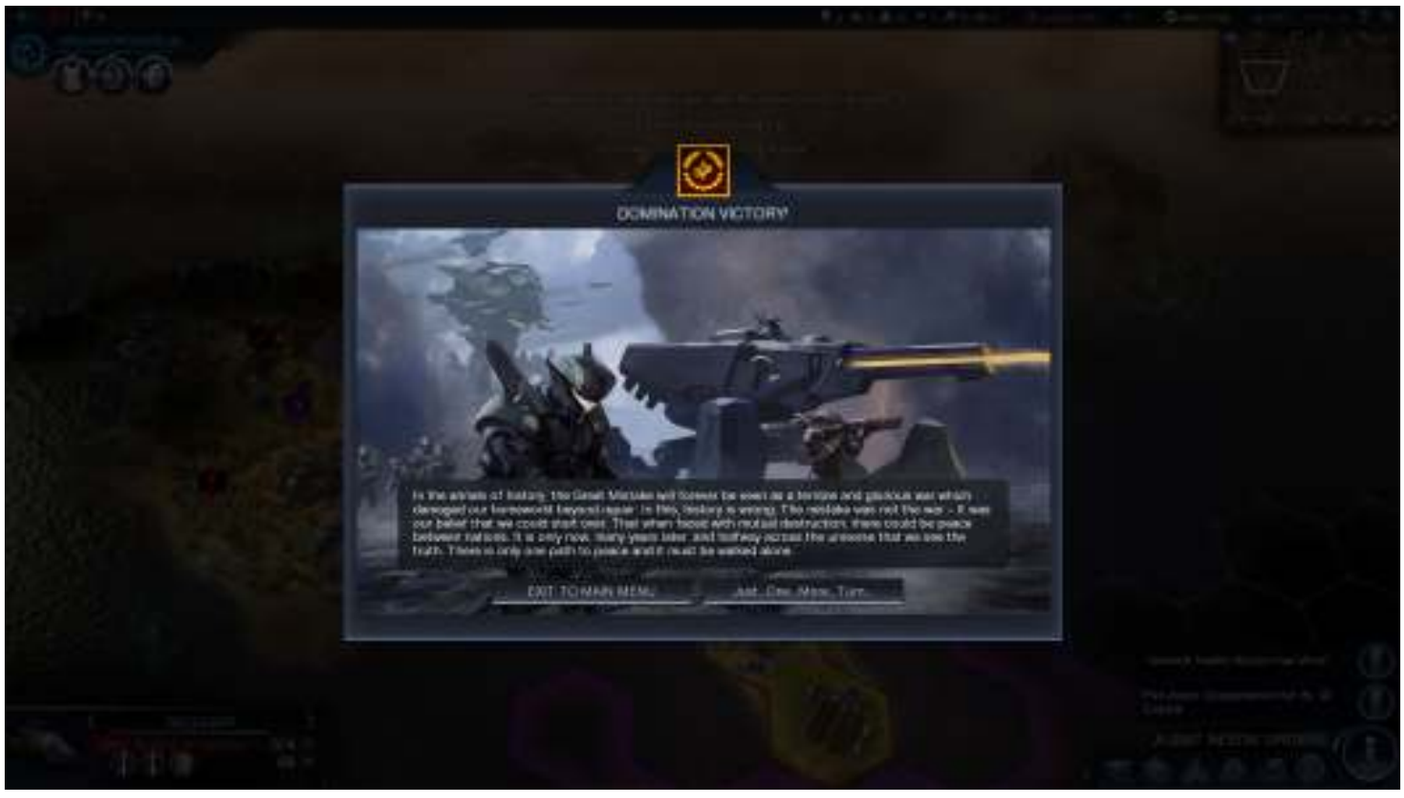
At a minimum, have two victory methods in mind as you go through each game. Domination doesn't have to be one of them, but it's a useful option in the majority of games.

# THE SIX WAYS TO WIN THE GAME

You can win *Civilization: Beyond Earth* in one of six ways. Know how to do each of them so that you have alternatives.

## Domination (Military Victory)

- **Goal #1**: Be the last nation that still holds their original capital city.




This is one of the most intuitive victory methods in the game. Knock out all of the other capitals, and you win. However, there can be more to it than that. Many newcomers to the series might think that the winner has to be the one who maintains control over all of the capitals, and that's simply not the case. Rather than thinking of this as pure domination, consider it more like a game of last person standing. You don't even need to declare war or take a single city to win this way. If other nations cut each other down, you only need to be the one who survives and holds on to their own capital the longest.

Having a great military is a good way to prevent the loss of your capital, and it helps to ensure that Domination occurs before any rivals get to their own victory conditions. As such, you're better off preparing for war and attacking anyone who doesn't lose their capital without wasting too much time.

During the early or middle game, you want to conquer swaths of enemy territory. Take cities, let them grow, and your empire will become stronger over time. Toward the end of the game, you don't need to have that level of care. Instead, look at the number of people who have their original capitals, and see if you can rush in, crush their defenders, and take those cities. You don't need to hold on to them. Just crush the person's chance for Domination, and you will be that much closer to the end.

Lightning raids with fast-moving units and air support (if possible) are great for taking out capitals that have exposure to your borders, neutral territory, or the ocean. Look for a weak point so that you don't always have to defeat a person's entire military just to win the day.

Might virtues are not required for this type of victory, but they do make some of your campaigns that much easier to win.

# Contact (Economic Victory)

- **Goal #1**: Discover "The Signal."
- **Goal #2**: Decode The Signal.
- **Goal #3**: Construct the Beacon.
- **Goal #4**: Activate the Beacon.
- **Goal #5**: Earn Energy to power the Beacon.

This victory method is another one that's available to any player regardless of their affinity choices. Contact lets you make contact with an advanced alien species and begin a new level of human interactions.

The first step in this is to discover The Signal. You do this by completing the Transcendental Equation (a project that is unlocked when you research Transcendental Math, a leaf of Computing). If that isn't your preferred method, you can meet the same goal by launching a deep space telescope. This takes more time because you have to wait for the telescope to detect The Signal, and that is a random event.

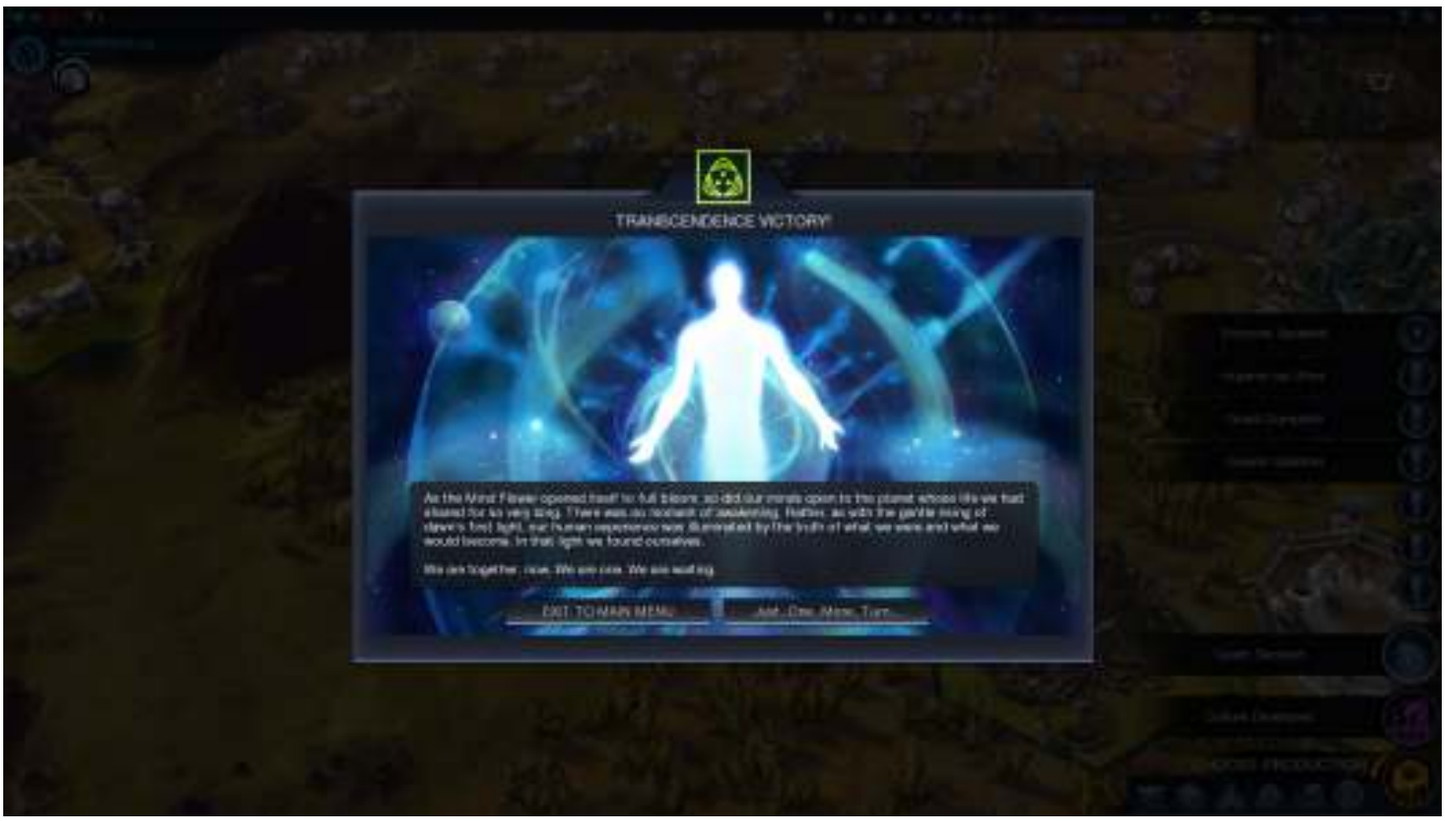
In the rarest cases, you can discover The Signal by launching expeditions in Progenitor ruins. This isn't something that you can really plan for. It might happen, but it's more of a moment of opportunity than anything else.

Once you find The Signal in any way, you have to use the Decode Signal project in one of your cities. Finish that, and then use the Beacon project to get access to the end stage of the game. With the Beacon running, your economy starts to shift. All surplus Energy goes into the Beacon, and you win if you can get enough Energy to make contact.

To help with this victory method, you must have a large nation (the more cities, the better), a thriving economy (with more generators and economic buildings), and solid trade with other nations. Prosperity and Industry virtues are both very helpful. Industry gets you the Energy and buildings you need, and Prosperity lets you maintain a larger nation without as many downsides.

# Transcendence (Harmony Victory)

- **Goal #1**: Contact the planet's consciousness.
- **Goal #2**: Create the Mind Flower.
- **Goal #3**: Merge with the planet's consciousness.




Technology lets you get your foot in the door with a Transcendence victory. You ultimately need to have at least 13 levels of Harmony and several Technologies mastered before you can begin (Nanorobotics, Transgenics, and Swarm Robotics).

With these three techs and a high Harmony affinity, you can start work on the Mind Flower. Construct that wonder in a city that is well defended. You won't want any enemies to come in and ruin your progress. Make sure to have Alien Ethics researched by the time that the Mind Flower is done because that Technology is vital to winning the game quickly.

Once the Mind Flower is ready, start to construct Xeno sanctuaries and mind stems as quickly as possible. Rush their Production whenever you can, and put these buildings into every city, regardless of that city's purpose within your nation. The sooner you get all of these buildings ready, the sooner Transcendence completes, and you win the game. This can be hurried through much sooner than the Purity and Supremacy victory methods. Enemies of Harmony players must be aware of this and react quickly to stop anyone who is close to finishing their Mind Flower.

## The Promised Land (Purity Victory)

- **Goal #1**: Contact Earth.
- **Goal #2**: Construct the Exodus Gate.
- **Goal #3**: Summon Earthling settlers.
- **Goal #4**: Shelter the settlers.

Launch a Lasercom Satellite as soon as you have access to these orbital units (they're researched with Orbital Networks). Once in the sky, these orbitals give you the baseline that you need to start the Exodus Gate. You must also reach Level 13 Purity affinity, so this isn't something that you can do early in the game, even if you rush to get the Technology in place.

Choose a very defensive city for your Exodus Gate. You have to protect the tile that the gate is on and prevent enemies from getting anywhere near it. They'll have the ability to ruin your progress if they take control of the area, so fight with everything you have.

Once per turn, the Exodus Gate can produce an Earthling settler. Lead these settlers into safe territory, and have them settle there. Up to six settlers can use the same tile for settling; they function like an outpost, though they don't have any defenses. You must use your military power to protect them from other players, who are extremely likely to attack. Not only do they get resources for destroying your settlers, but it also keeps the game going. Even friendly nations may start attacking you at this point in the game.

If you settle enough of those cute little Earthlings, you win the game!

## Emancipation (Supremacy Victory)

- **Goal #1**: Contact Earth.
- **Goal #2**: Construct the Emancipation Gate.
- **Goal #3**: Send military units to establish order on Earth.

Emancipation begins in the same manner as the Promised Land victory. Launch a Lasercom Satellite after you research Orbital Networks. This lets you contact Earth and begin the next stage of the task. Get 13 levels or more of Supremacy Experience, and then construct an Exodus Gate in a very defensive location near your strongest city.

Once complete, the Exodus Gate can transport one military unit per turn back to Old Earth. You need a set amount of Combat Strength to head through the gate, so the strongest melee unit you can find each turn is going to have to head through. If you have massive Production, prioritize Strength over everything else. If you have trouble keeping up with demand and are missing turns, then prioritize the cheapest units so that you at least have something to send through the gate every turn.

It takes a fair number of turns to get enough units through the gate to win. Watch your borders, and don't abandon your defenses just to keep the gate loaded with troops. You need Production, units, and safety to keep this effort going. It's okay to lose some territory on the periphery, but don't give up your empire. It's too easy for enemies to get an opening after that, and if you lose the gate, you've just lost the game entirely because your nation will be set so far back.

## Highest Score (End Of Game Victory)

- **Goal #1**: Have the highest score at the end of the game.

If you run out of turns (at Turn 500 in a standard pacing), the game ends, and everyone's score is tallied. The winner of these long games is the nation that has the highest score when this occurs. It's hard to try to win by this method because so many of the ways to get more points put you in a position that allows you to win sooner by other means.

That said, here are ways to improve your score. It's nice to have a higher score anyway because that usually reflects on something powerful and useful to your nation in the first place. Also, this goes toward calculating the final score that you're given for the Hall of Fame (though that is also quite dependent on the number of turns you take to achieve victory).

## Items That Control Your Score

- Number of tiles inside your borders
- Higher population
- Number of techs researched
- Wonders constructed
- Virtues unlocked
- The sum of all affinity levels
- Military Strength
- Total number of covert agents
- Total Science accrued
- Total Culture accrued

If you go into the Diplomacy screen and highlight your nation's score there, you get a full breakdown of those points. This is useful for seeing where you frequently do well; it also gives you an idea for areas that you can improve on in the future.

Multiplayer:
# Flexibility in Your Strategies

Many of the ideas that help you excel at single-player games are also going to help you during multiplayer games. However, when you're playing against real people, you must watch out for additional things. Human opponents have the ability to adapt to your clever tricks, making it possible for good plans to become big errors.

This chapter will discuss some of the common problems and possibilities when you take on other Civilization players.

## USE FLEXIBILITY IN YOUR STRATEGIES

Flexibility was mentioned in the single-player chapter, but it's even more important to stress here. Fixed methods of growth and defense are going to get you in trouble when you're facing human players. During a game, that can come back to bite you. Across multiple games, if you play with the same people, it's really going to get you in trouble. People watch their games and think *about* what's going right and wrong. This is even true of mediocre players. Even when they're just playing quickly and hurrying through turns, part of their head is in the mechanics of the game. When something doesn't work, it upsets them, and they'll try to fix it in the future.

Let's see how to mix up good playstyles.

## CHANGE YOUR MILITARY GOALS BASED ON RIVALS' ACTIONS

Don't always use the same unit upgrades and groups of attackers. If you're always raiding with bands of rovers, your opponents aren't going to leave their flanks and peripheral cities undefended for long. Instead of single gunners, they'll start putting a couple of melee *units*, an orbital, and a ranged unit near every vulnerable point in their borders. It's going to be impossible for a small raiding party to deal with that, so don't try.

Avoid mindlessly charging against a player who is turtling their borders like that. If they are creating a defensive military that large, let them! They're devoting serious time to their defense, and that time and Production could have been going toward infrastructure, wonders, and other long-term goals.

Change tactics when your opponent changes theirs. Be aggressive against players who are overdeveloping (too many cities, few *units*, multiple wonders popping out). Use defensive forces to punish militarists who come at you for fast kills and easy territory. Deploy defensive orbitals, fortify cheaper melee *units* in front of your cities, and keep the war going steadily for as long as you can. Longer wars often favor the defender.

## SPECIALIZED UNITS

One powerful trick is to differentiate your *units* as strongly as possible. Make one melee unit a good attacker, but give totally defensive bonuses to another type of unit. Only use your defenders on internal operations, and let your attackers go off to campaign. This specialization of your military is great for keeping your opponent off guard. They're always going to be facing something with good bonuses for the task at hand, so they'll need different tactics when fighting you offensively and defensively.

You've already learned to avoid doing the same thing every time, so try not to specialize your military the exact same way each game. That way, you force yourself to develop new methods of specialization. You won't always have many exploitable weaknesses when playing against the same people in the future because they'll have to wait and see what you're doing each time rather than assuming that you are playing the same way as you did the game before.

## CONSTANTLY USE YOUR SPIES

The computer lets you scout way too aggressively. Your people can watch the borders of most nations quite frequently as long as you don't stick around or bring too many buddies. Moving along the border and then quickly darting away doesn't get much attention.

That isn't the case with humans. They'll recognize that you're sizing them up, and then they'll prepare additional defenders. Use that against them sometimes by pretending to get an attack ready. They'll assume that you're scouting with purpose and waste time moving people around or training new *units* that aren't required.

When you really do want information *about* the layout of an area, use spies instead of military *units*. Spies are far more effective scouts because their networks give you tons of information *about* the layout of a region, the things that are being built there, and so forth. Even your best military *units* can't scout that well! Also, your enemy isn't likely to know what's going on if you only use low-difficulty *covert operations*.

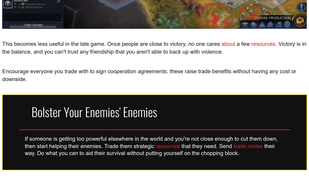
Use multiple spies throughout a given enemy nation so that you can see even more of their terrain, unit movements, etc. This has the added advantage of avoiding trouble with more than one person if you get caught.

Watch players' cities to see when their forces are deployed in a way that isn't defensive. Are they rushing toward a different border to deflect someone else's attacks? Maybe it's a good time to strike. Friendships are nothing if not ephemeral during multiplayer matches.

## TRADE WITH MULTIPLE NATIONS

Players aren't immune to the positive effects of trade, as well. People like getting free *resources* without even lifting a finger. If you trade with multiple players, you're slightly less likely to be attacked, all things being equal.

Your job is to make sure that things remain equal! Keep your forces as strong as possible to ensure that you aren't a soft target. No one is going to care *about* trade if you're so soft that they can take out your nation without major losses. Instead, you need to be tough and profitable.



This becomes less useful in the late game. Once people are close to victory, no one cares *about* a few *resources*. Victory is in the balance, and you can't trust any friendship that you aren't able to back up with violence.

Encourage everyone you trade with to sign cooperation agreements; these raise trade benefits without having any cost or downside.

### Bolster Your Enemies' Enemies

If someone is getting too powerful elsewhere in the world and you're not close enough to cut them down, then start helping their enemies. Trade them strategic *resources* that they need. Send *trade routes* their way. Do what you can to aid their survival without putting yourself on the chopping block.

## MONEY IS STILL THE BEST COUNTER

Energy is a powerful tool, and that's doubly true in multiplayer matches. The ability to quickly summon troops or defensive *buildings* is incredible when you're dealing with the dynamic nature of human players. All games are easier because you get a strong feeling for the flow of warfare; it's easy to see things coming. Because you can't predict humans as well, you must have Energy on hand to slow down sudden onslaughts. Buy a defensive perimeter and an extra melee unit to protect a city that's suddenly in danger. That might get you enough time to bring forces over there using your awesome road network.

Don't use money just to develop young cities. That's a great method in single-player games, and it still has its place in multiplayer games, too. However, be aware that a rainy day fund of 1,000 Energy credits can often be the difference between losing a city during a raid or fending off an attack force and having a chance to strike back.

Multiplayer
# Paranoia Wins Games

Make sure that you assume the worst about every player in a game (not about the person you're playing, but about their intentions within the game). This isn't a morality tale. *Civilization* is about the pursuit of victory, and you aren't being judged as a good guy or a bad guy. Someone who stays on your side for 150 turns isn't any more likely to help you than your worst enemy once the end of the game approaches.

## EXPECT WAR

Your point score isn't a way to intimidate anyone; it's an invitation. Having tons of wonders and large cities only means that you're worth conquering. Never leave any border in your nation exposed because you think that the player over there isn't going to fight you. It's true that they might not, but don't assume it. Keep at least enough defensive forces nearby to deter or at least slow down an attacker before they can get anything valuable.

Fortified units in rough terrain and ranged units in cities are both wonderful for this task. Try not to use too many troops, as that is a costly endeavor. Have enough people on hand to rival the number of enemies you're seeing anywhere near the border in question. Is it vacant? Well, then you should be the one attacking. See several troops in the vicinity? Keep a few people ready. See huge piles of units over there? Get ready for a fight, and take a long look at your other borders, too. People won't always attack by themselves (this is also true of the computer).

## RULE THE WAVES, WATCH THE SHORES

Naval forces can bring a city's defenses down very quickly. Fast naval movement allows units to approach a city and bombard it on the city turn, even fairly early in the game. The mix of a single fast unit and a good naval attack can topple a coastal city on Turn 1 of a war.

Keep your navy prepared for war if you have any exposed coastal cities. Leave them at the edge of your borders so that nothing gets close enough to assault your cities without your knowledge. Don't let anyone push too close, even during times of peace.

## FIGHT IN BURSTS

A common weakness of conquerors, especially in single-player games, is to reach a certain point with their nation and start eternal warfare against the rest of the world. This is not a good idea, especially in multiplayer games. You're unlikely to get so much of a lead against most foes that it's safe to rampage against everyone. People have more time to react, prepare defenses, forge alliances against you, and repel your attack.

Not every war has to beat an epic conquest. If you see an opportunity to get something good, seize that. Humans aren't like the AI. Other players won't always turn on you when you make a nasty war against another nation. "I would have done the same thing" comes into play a fair bit.

Usually, human diplomatic issues are entirely determined by positioning, power, and mind games. Act friendly while doing foul deeds, and you might get away with murder.

Be on the lookout for key opportunities to start a skirmish. See colonists without good enough escorts? Workers and improvements that aren't guarded? Weak cities? Open borders? These are all good reasons to start a war. Even if you only get one city, that is a huge edge on your opponent.

## EVERY TURN COUNTS

When building your army, assume that your target knows what's coming and is preparing a proper defense. Never approach an enemy city with the mindset that defenders won't arrive. Be ready for air units to rebase, defensive buildings to be purchased, and new units to race along the roads. The city you see ahead rarely appears as weak on Turn 3 of a war as they do on Turn 1. Every single moment matters.

Count on enemies to make smart decisions, and simply be happy when they don't.

## YOU TWO GO AHEAD AND FIGHT

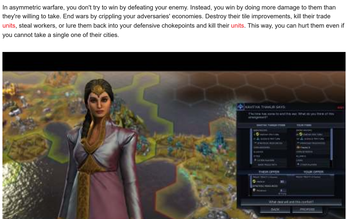
The oldest trick in the book is to have your enemies fight each other. Humans are extremely susceptible to mind games. Point out when another player has the most points. Warn others, with "genuine" concern, if anyone has too many virtues or too large a military. Joining forces against larger targets is wise, but it's better for your civilization if you deceive others into fighting without demanding your involvement in the process.

Don't let other people do this to you. Never start a war out of fear. Do it because you have a better chance of winning the game by proceeding. When other people communicate with you during a game, be polite. Be funny. Have a good time with them. And, ignore almost everything that they say, unless it has direct use for you and has provable benefits.

## ASYMMETRIC WARFARE

There are some opponents that you can't beat militarily. They might have better land, a larger military, Might virtues, or more experience as a tactical leader. Whatever the case, realize that you cannot win a traditional battle, and stop trying to do this. Instead, move the goalposts, and try a different type of battle.

In asymmetric warfare, you don't try to win by defeating your enemy. Instead, you win by doing more damage to them than they're willing to take. End wars by crippling your adversaries' economies. Destroy their tile improvements, kill their trade units, steal workers, or lure them back into your defensive chokepoints and kill their units. This way, you can hurt them even if you cannot take a single one of their cities.



This bitter pill is a way to encourage neighbors to fight other targets. Your first goal in a war is to win. The second goal is to not lose. Fast raiders, groups of cheaper melee units near cities, and stacked defensive bonuses are all ways to improve this process.